FY2005
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Fort Campbell
Installation Action Plan

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Installation Restoration Program (IRP) for Fort Campbell. The plan will identify environmental cleanup requirements at each site or area of concern, and propose a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations and necessary remedial actions.

The IRP is specifically focused at contamination resulting from past activities, and is funded by the centrally-managed Environmental Restoration, Army (ER,A) budget account. Cleanup activities directed at contamination primarily resulting from current operations are separately funded and managed and although mentioned where relevant, will not generally be discussed in detail in an IAP.

In an effort to coordinate planning information between the IRP manager, major army commands (MACOMs), installations, executing agencies, regulatory agencies, and the public, an IAP has been completed for Fort Campbell. The IAP is used to track requirements, schedules and budgets for all major Army Installation Restoration Programs.

All site specific funding and schedule information has been prepared according to projected overall FORSCOM funding levels and is therefore subject to change. Under current project funding, all remedies will be in place at Fort Campbell by the end of 2010.

The following agencies contributed to the formulation and completion of this Installation Action Plan:

BHATE
CDM
Enginnering & Environment, Inc.
EPPC Environmental Services
Fort Campbell IRP
Fort Campbell Restoration Advisory Board
ICF Consulting
Kentucky Department of Environmental Protection
KYDEP-RISK
STEP, Inc.
Tennessee Department of Environment and Conservation
U.S. Army Corps of Engineers, Nashville
U.S. Army Environmental Center
U.S.G.S.

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Installation Information

SITE DESCRIPTION:

Fort Campbell (FTC) is a 105,347-acre facility which serves as the headquarters of the 101st Airborne Division. FTC occupies portions of Christian and Trigg Counties in southwestern Kentucky and Montgomery and Stewart Counties in north central Tennessee. FTC is located approximately 50 miles northwest of Nashville, Tennessee.

IRP EXECUTING AGENCIES:

FOR INVESTIGATION PHASE:
U.S. Department of Energy & U.S. Army Corps of Engineers, Nashville District (CELRN), U.S Department of Energy, Oak Ridge National Laboratories, Waterways Experiment Station (WES), U.S.Geological Survey (USGS), U.S. Army Corps of Engineers, Topographic Engineering Center (TEC), U.S. Army Environmental Center (USAEC)

FOR REMEDIAL DESIGN PHASE:
U.S. Department of Energy, Oak Ridge National Laboratories &
U.S. Army Corps of Engineers, Nashville District (CELRN)

FOR REMEDIAL ACTION PHASE:
U.S. Department of Energy, Oak Ridge National Laboratories &
U.S. Army Corps of Engineers, Louisville District (CELRL)

REGULATORY PARTICIPATION:

FEDERAL:
U.S. Environmental Protection Agency, Region IV, Federal Facilities Section (EPA)
STATE:
Kentucky Department of Environmental Protection (KYDEP)
Tennessee Department of Environment and Conservation (TDEC)

REGULATORY STATUS:

- Non-NPL (National Priorities List)
- RCRA Part B permit, Nov 90 (TDEC Permit TN5 210 020 140)
- InterAgency Agreement, None

MAJOR CHANGES TO THE IAP FROM PREVIOUS YEAR:

- None

Installation Description

DESCRIPTION

Fort Campbell is located in southwestern Kentucky and northcentral Tennessee in portions of four counties; Montgomery and Stewart Counties in Tennessee and Christian and Trigg Counties in Kentucky. The installation is approximately eight miles north of Clarksville, Tennessee and seventeen miles south of Hopkinsville, Kentucky. Of the 105,347 total acres of land occupied by the Forces Command (FORSCOM) Installation, approximately two-thirds are in Tennessee with the remainder in Kentucky. The built-up area in Montgomery and Christian Counties consists of 14,000 acres along the eastern boundary of the reservation adjacent to US Highway 41-A. It is broken down into the following land uses:

Main Cantonment Area	5,900 acres	5.6 % of Total Area
Campbell Army Airfield	2,500 acres	2.4 % of Total Area
Former Clarksville Base	3,400 acres	3.2 % of Total Area
Lake Taal Recreation Area	1,600 acres	1.5 % of Total Area
Sabre Heliport Area	600 acres	0.6 % of Total Area

HISTORY

- Camp Campbell was officially commissioned on March 6, 1942 as a major armor training and mobilization center for the World War II effort. It became the training ground for the 12th, 14th and 20th Armored Divisions; Headquarters IV Armored Corps; and the 26th Infantry Division. The post also served as a Prisoner of War camp during the war, and over 4,000 German soldiers were incarcerated at Camp Campbell.

- The 11th Airborne Division, the “Angels” of World War II, was reactivated and headquartered at Camp Campbell from May 1949 to January 1956, at which time, it was replaced by the 101st Airborne Division, the famed “Screaming Eagles.”

- On January 1, 1959, Campbell Army Airfield (CAAF) was transferred from the U.S. Air Force to the Army, becoming the Army’s largest airfield.

- On April 14, 1959, Camp Campbell was redesignated Fort Campbell and became a permanent post.

- From 1966 to 1971, a Basic Combat Training Center was established at Fort Campbell.

- In December 1967, the last members of the 101st Airborne Division were airlifted to Vietnam, to be replaced by the 6th Infantry Division, which remained at Fort Campbell until July 1968.

- In December 1971, the 101st Airborne Division returned to Fort Campbell as a reorganized, all-volunteer unit to establish a permanent headquarters.

- The division developed an air assault character in October 1974, and “Air Assault” became a part of its official title.

MISSION

Fort Campbell is an active FORSCOM installation, which is currently organized as a combined headquarters of division (tactical, staff) elements and post (management support) elements. Approximately 30,000 military and civilian personnel and 4,000 U.S. Army Reserve personnel currently further the mission of FTC, namely, “to support and train the 101st Airborne Division (Air Assault), the 5th Special Forces Group and other associated FORSCOM units located on the installation in preparation for a variety of assigned combat and combat-related missions.”

Installation Description

This mission includes the support and training of US Army Reserves (USAR) and the National Guard (NG). A secondary mission includes providing medical and dental care for active duty military, their dependents, and retired military personnel. An additional mission is to train noncommissioned officers in specialties in the fundamentals of leadership. Critical to the military operation are provisions for the safety and security of all personnel.

STATISTICS

SIZE OF POST: 105,347 ACRES

Number of Ranges: 48
Number of Drop Zones: 5
Number of Assault Landing Strips: 1
Number of Impact Areas: 3
Number of Maneuver Areas: 51
Number of Artillery Firing Points: 200
Number of A2C2 Airspace Sectors: 10
Number of Bayonet Assault Courses: 1
Number of Rappel Towers: 1
Number of MOUT Facilities: 3
Number of Demo Areas: 1

Contamination Assessment

In January 1982, the U.S. Army Environmental Center (AEC), formerly the U.S. Army Toxic and Hazardous Materials Agency (USATHMA), conducted an on-site installation assessment at Fort Campbell to determine the presence of any toxic or hazardous materials and to assess the potential for off-post migration. Based on the findings of this assessment, a field survey was not recommended.

On October 13, 1985, while drilling an anode bed boring for the cathodic protection system at Campbell Army Airfield (CAAF), the contractor reported a strong petroleum odor. Because of the suspected hydrocarbon contamination, the U.S. Army Corps of Engineers District, Nashville initiated a study into the possibility of subsurface JP-4 contamination. On April 16, 1987, Nashville's contractors, MCI Consulting Engineers, Inc., issued a final report which recommended further investigation at Campbell Army Airfield.

Concurrent with the environmental investigations at Campbell Army Airfield, an installation-wide assessment was also conducted. To facilitate the preparation of Fort Campbell's RCRA Part B Permit, the U.S. Army Environmental Hygiene Agency (USAEHA) prepared an evaluation of Fort Campbell's SWMUs in February 1988. USAEHA identified 37 SWMUs, 17 of which were thought to require additional environmental investigations. This report was forwarded to EPA, Region IV as an attachment to the RCRA Part B Permit application.

On March 23, 1990, Fort Campbell (FTC) received a notice of violation from the Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC) for JP-4 fuel contamination found at Campbell Army Airfield. The Army proposed a remediation schedule which was accepted by the UST Section of the KNREPC. This schedule included an interim remedial action.

On June 14, 1990, EPA, Region IV conducted a RCRA Facility Assessment (RFA) at FTC. The RFA identified 133 solid waste management units (SWMUs) and three areas of concern (AOCs). Ninety-six SWMUs and two AOCs required further investigation in the form of confirmatory sampling and analysis. There are nine SWMUs and one AOC at Campbell Army Airfield where there has been a known or suspected waste release, so a RCRA Facility Investigation was required. FTC's RCRA permit, which is jointly held by Tennessee Department of Environment and Conservation (TDEC) and EPA, Region IV, was approved in November 1990. In conjunction with the permit, are deadlines, objectives, responsibilities, and procedures for implementing environmental investigations and corrective actions at Fort Campbell.

EPA Region IV utilized this document while writing their Fort Campbell RCRA Facility Assessment in June 1990. The EPA expanded the number of SWMUs requiring further investigation from 17 to 108 including confirmatory sampling sites and RCRA Facility Investigation (RFI) sites.

EPA Region IV approved the confirmatory sampling and RFI work plans in June 1992. The actual RFI field work took place in two rounds between August 1992 and March 1993, and July and August of 1993. Based on preliminary results, several data gaps were identified. A follow-on field investigation to fill these gaps was completed in August 1993. The Draft Final Confirmatory Sampling Report and Draft Final RFI Report were submitted to the regulators in November 1993.

The Army Environmental Center did not agree with some of the interpretations of the Draft Confirmatory Sampling and Draft RFI Reports.

A remedial investigation (RI) was conducted in three phases between 1988 and 1991. The purpose of the RI was to investigate the nature and extent of subsurface contamination attributable to past leakage from an underground bulk fuel storage system and/or associated transfer piping. Phase one investigations focused on one group of six underground, JP-4, storage tanks for the purpose of acquiring preliminary information to evaluate the site. The phase two investigation was used to acquire more detailed site data and to expand the site to include both sets of six underground, fuel tanks and connecting piping. Phase three also expanded the site to include an investigation of the JP-4 pipelines leading from the above ground bulk storage tanks to the fueling area. In addition, phase three included a field program to evaluate the potential for contamination caused by discharged fuel in the bedrock aquifer at the Campbell Army Airfield western perimeter and offsite surface water or springs.

Campbell Army Airfield, the Army's largest airfield, is located in the northeastern corner of Fort Campbell. The karst geology has a high potential for contaminants to migrate off-post.

The remedial investigation (RI) efforts consisted of a three-phase program with three field programs conducted in August-September 1988, 1989 and 1990. These field efforts revealed the origin of the JP-4 detected at the soil/bedrock contact zone to be related to

percolation of surface water into the bedrock through a sinkhole, rather than percolation through the clay soils underlying the site. Surface water runoff from the study area and adjacent areas flows into a sinkhole located 2,000 feet northeast of the site; the water then travels through vertical conduits in the soil and enters the bedrock aquifer. The aquifer then flows westward under the site, with discharge occurring approximately 2.5 miles away at Quarles Spring. Fuel present in the surface water runoff, probably due to surface spills during aircraft fueling or defueling, would become trapped in the irregular soil/bedrock contact zone after disassociating from the infiltrating surface water and trying to rise to the potentiometric surface of the bedrock aquifer. This interpretation is supported by the virtual absence of JP-4 related contamination in the soil at the site between the near surface and soil/bedrock contact zone.

Exposure points and receptors for the JP-4 or related components in the subsurface soils and groundwater have been identified by the Relative Risk Site Evaluation (RRSE). The potential for future exposure at levels that produce risks and hazards in excess of EPA remediation goals exists if water beneath the site is consumed. However, the JP-4 detected at the soil/bedrock contact zone does not appear to be migrating from the study area. Trace levels of some JP-4 components have been detected in the western perimeter wells but at concentrations which result in a calculated risk below EPA remediation goals.

Based on the review of the previous studies conducted at the Airfield, it has been determined that additional studies will be required to accurately determine the extent of the JP-4 contamination and groundwater movement at the Airfield. Specifically, the tank farm (AOC D), the underground concrete collection vault (SWMU 157) along with the abandoned aircraft washrack (outfall H) must be investigated as part of the site characterization.

To support these additional studies, USEPA IV and the Commonwealth of Kentucky, along with the installation, have instituted a concept for Campbell Army Airfield which has been designated a “Master RI/FS.” This concept permits the designation of the entire Campbell Army Aifield as a Solid Waste Management Unit Group (SWMUG) which is similar to the Corrective Action Management Unit (CAMU) Concept. This allows all SWMUs on and near the airfield to be reviewed as a group instead of individually. This concept is expected to speed up the RI/FS process and result in a substantial savings to the Army.

In conjunction with the RI, (Dr. Ralph Ewers of Ewers Water Consultants, Inc.), performed dye tracing and time of travel studies to determine the hydrogeologic connection between a sinkhole located at Campbell Army Airfield and several off post springs. Dr. Ewers’ investigation revealed that water entering the Campbell Army Airfield sinkhole reached Quarrles Spring within 4 days, during high flow periods.

The draft final Feasibility Study (FS) report, for the pump and treat system at AOC-A within Campbell Army Airfield, was completed in January 1992. The objective of remedial actions considered in the FS was to prevent potential future risks due to exposure to site contaminants in the groundwater. Upon screening of technologies and development of remedial alternatives, five alternatives for groundwater remediation, including a no-action alternative, were evaluated. Based on the comparative evaluation, the recommended alternatives consist of on-site recovery and treatment of contaminated groundwater, and free product recovery from the soil/bedrock interface zone. This document was approved in July 1995 by EPA, Region IV.

During FY 97 CAAF was classified as a Solid Waste Management Unit Group (SWMUG) by the State of Kentucky. This action included all SWMUs located within and directly adjacent to the airfield. This SWMUG includes AEDB-R numbers: FCPBs 03, 04, 19, 35, 36, 38, 39, 59, 60, and 61. Groundwater contamination at the SWMUG has been confirmed and all sites have been assigned a high relative risk rating based on this contamination. All sites are being investigated under the CAAF “master RI” to determine if they are contributing to known groundwater contamination. If any site is determined to be a contributor to the groundwater contamination, it will be included in the SWMUG remedial action plan and, if not a contributor, appropriate actions will be taken to classify it as response complete.

Ft Campbell Previous Studies

DOC #	DATE	DOCUMENT_TITLE	DESCRIPTION	AGENCY
1	04/1987	Subsurface Investigation for JP-4 Contamination, PPOL Facility 7226	CAAF Investigation	by MCI Consulting Engineers, Inc. for U.S. Army Corps of Engineers, Nashville District`
2	12/1987	Task Order No. 9 Remedial Investigation/Feasibility Study and Limited Remedial Actions	UFSS at Campbell Army Airfield	by Dames & Moore for U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground
3	09/1989	Task Order No. 9 Addendum to Remedial Investigation Report for Fort Campbell, Kentucky	UFSS at Campbell Army Airfield	by Dames & Moore for U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground
4	02/1990	Campbell Army Airfield UFSS Site/Outfall C	Outfall C (AOC H)	by ERC Environmental and Energy Services Company for US Army Corps of Engineers, Nashville District
5	07/1990	Task Order No. 19 Fort Campbell RI Completion	UFSS at Campbell Army Airfield	by Dames & Moore for U.S. Army Toxic and Hazardous Materials Agency
6	08/1990	Interim RCRA Facility Assessment Report for Fort Campbell Military Reservation	RFA Report	Prepared by A.T. Kearney, Inc. for U.S. Environmental Protection Agency, Region IV
7	09/1990	Notice Of RCRA Final Permit Decision for Hazardous and Solid Waste	Notice Of RCRA Final Permit Decision for Hazardous and Solid Waste	Issued by the Environmental Protection Agency: Region IV
8	07/1991	Remedial Investigation Report for UFSS Site Fort Campbell Kentucky Volume I of II	UFSS at Campbell Army Airfield	by Dames & Moore, Ltd. For U.S. Army Corps of Engineers Toxic and Hazardous Materials Agency
9	07/1991	Remedial Investigation Report for UFSS Site Fort Campbell Kentucky Volume II of II	UFSS at Campbell Army Airfield	by Dames & Moore, Ltd. For U.S. Army Corps of Engineers Toxic and Hazardous Materials Agency
10	01/1992	Feasibility Study Report UFSS Site, Campbell Army Airfield Task Order No. 7	UFSS at Campbell Army Airfield	by Dames & Moore for US Army Toxic and Hazardous Materials Agency
11	06/1992	Confirmatory Sampling Plan for Sites at Fort Campbell	Final SWMUs 1-11, 13, 14, 19, 20, 22, 24, 25, 31, 33, 36, 37, 41, 42, 47a, 48	by Metcalf & Eddy, Inc. for Department of the Army, US Toxic and Hazardous Waste Materials Agency
12	07/1992	Hazard Ranking System (HRS2) Score Summary Report for Fort Campbell Military Reservation	Summary Report	by Advanced Sciences, Inc. for U.S. Army Corp of Engineers Toxic and Hazardous Materials Agency
13	02/1993	JP-4 Fueling/Defueling Feasibility Study for Fort Campbell	CAAF Study	by EA Engineering, Science, and Technology, Inc. for U.S. Army Corps of Engineers, Nashville
14	07/1993	Final Submittal Construction Site Clearance Survey at Old Hospital Complex for Directorate of Engineering and Housing (DEH)	Construction Site Clearance Survey at Old Hospital Complex	by LAW Environmental, Inc. for U.S. Army Corps of Engineers, Nashville District
15	01/1994	Analysis of Groundwater Recharge and Transfer Mechanisms	Boiling Springs	Ewers Water Consultants Inc.
16	01/1994	Quarles Spring Ground Water Basin Analysis	Quarles Spring	by Ewers Water Consultants Inc.
17	03/1994	Solid Waste Management Unit Integrity Check of Oil/Water Separators	Integrity check of Oil/Water Separators	by Ferguson Harbour Incorporated for Dames & Moore
18	05/1994	Fort Campbell, Kentucky Oil/Water Separator Investigation Including Interior Integrity Inspections and Contamination Evaluation Volume I	Oil/Water Separators	by Dames & Moore for U.S. Army Corps of Engineers
19	05/1994	Fort Campbell, Kentucky Oil/Water Separator Investigation Including Interior Integrity Inspections and Contamination Evaluation Volume II	Oil/Water Separators	by Dames & Moore for U.S. Army Corps of Engineers

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DOC #	DATE	DOCUMENT_TITLE	DESCRIPTION	AGENCY
20	06/1994	Final Report Waste Disposal Engineering Study No.37-26-J31N-94 Demolition Site Assessment Fort Campbell Kentucky 4-12 June 1994 USAEHA	Demolition Site Assessment U.S. Army Environmental Hygiene Agency	U.S. Army Environmental Hygiene Agency
21	12/1994	Berm Pit Projects Fort Campbell Tennessee/Kentucky	Berm Pits	by Four Seasons Environmental, Inc.for U.S. Army Corps of Engineers, Louisville District
22	01/1995	UST Closure Report for Fort Campbell, Kentucky Werner Park Building # 1479 SWMU 151D	SWMU 151D Werner Park Building # 1479	by SUB TECH
23	04/1995	UST Closure Report for Fort Campbell Kentucky Werner Park Building #1489 SWMU 151 F	SWMU 151 F Werner Park Building #1489	by SUB TECH
24	04/1995	UST Closure Report for Fort Campbell Kentucky Werner Park Building # 1484 SWMU 151 E	SWMU 151 E Werner Park Building #1484	by SUB TECH Inc.
25	05/1995	Closure Assessment Report Kentucky Pipeline 6486 Wickham Avenue	Pipeline 6486 Wickham Avenue	by EMPE for the U.S. Army Corps of Engineers, Louisville District
26	07/1995	RCRA Facility Investigation at Fort Campbell Volume I of II	SWMU's 12/15, 21, 27, 28, 32, 35, 50 and 134 thru 137 (801st Motor Pool)	by Metcalf & Eddy, Inc. For U.S. Army Environmental Center, Aberdeen Proving Ground
27	07/1995	RCRA Facility Investigation at Fort Campbell Volume II of II	SWMU's 12/15, 21, 27, 28, 32, 35, 50 and 134 thru 137 (801st Motor Pool)	by Metcalf & Eddy, Inc. For U.S. Army Environmental Center, Aberdeen Proving Ground
28	07/1995	Confirmatory Sampling Sites at Fort Campbell (FTC) Volume I of II	SWMU's 1-11, 13, 14, 19, 20, 22, 24, 25, 31, 33, 36, 37, 41, 47 and 48	by Metcalf & Eddy, Inc. For U.S. Army Environmental Center, Aberdeen Proving Ground
29	07/1995	Confirmatory Sampling Sites at Fort Campbell (FTC) Volume II of II	SWMU's 1-11, 13, 14, 19, 20, 22, 24, 25, 31, 33, 36, 37, 41, 47 and 48	by Metcalf & Eddy, Inc. For U.S. Army Environmental Center, Aberdeen Proving Ground
30	08/1995	System Evaluation/Concept Design JP-4 Interim Remediation System Upgrade	Campbell Army Airfield Fort Campbell, Kentucky	OGDEN Environmental and Energy Services
31	01/1996	Work Performed Building #6486	Building # 6486 (Underground storage Tank Site near #6486)	by SVERDRUP Environmental (SvE) for U.S. Army Corps of Engineers, Louisville District
32	03/1996	Final RFI Work Plan Fort Campbell, Kentucky Oil/Water Separator Investigation	Oil/Water Separators	Dames & Moore for U.S. Army Corps of Engineers, Nashville District
33	05/1996	Delivery Order No. 16 Closure Report	SWMU 12/15	Science & Technology Inc. (SCITEK)
34	05/1996	Final Assessment and Recommendations for Oil/Water Separators at Fort Campbell, Kentucky	Assessment and Recommendations for Oil/Water Separators	by EA Engineering, Science and Technology, Inc for U.S.Army Corps of Engineers, Nashville District
35	07/1996	Recovery and Rehabilitation of Seven Monitoring Wells	Campbell Army Airfield Monitoring Wells	BAT Associates, Inc. for U.S. Army Corps of Engineers, Nashville District
36	08/1996	Gore-Sorber Screening Survey CAAF Fort Campbell, Kentucky	Campbell Army Airfield	W.L. Gore & Associates, Inc.
37	10/1996	State of Kentucky Solid Waste Management Closure Report for Underground Storage Tanks and Oil/Water Separators at #6551, #6555, #6559, #6563	155AB, 155AC, 155AD, 155E	by EMPE, Inc. for the U.S. Army Corps of Engineers, Louisville District

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DOC #	DATE	DOCUMENT_TITLE	DESCRIPTION	AGENCY
38	10/1996	Work Performed Fire Fighting Training Area Solid Waste Management Unit 15	SWMU 12/15	Sverdrup Enviromental Inc.
39	11/1996	Potentiometric Surface of the Bedrock Aquifer in the Campbell Army Airfield Area, Kentucky and Tennessee	Campbell Army Airfield	by United States Geological Survey
40	02/1997	Historical Photogeological Analysis of Surface Terrain Features	Campbell Army Airfield Report and CD	by U.S. Army Topographic Engineering Center for U.S. Army Corps of Engineers
41	04/1997	Standard Sampling and Analysis Work Plan Fort Campbell, Kentucky	SOP's for Groundwater Sampling Program	HAZWRAP
42	05/1997	SWMU 160 Old Waste Water Treatment Facility, Old Clarksville Base Fort Campbell, Kentucky	SWMU 160	Arthur D. Little
43	05/1997	Hydrogeologic Report for RCRA SWMU Assessment and RCRA Facility Investigation of Sites at Fort Campbell, Kentucky Volume I of II	SWMU's 2, 5, 9, 12/15 and 28 Beaver, Blue, Boiling, Dennis, Gate 1, and Quarles Springs	Arthur D. Little
44	05/1997	Hydrogeologic Report for RCRA SWMU Assessment and RCRA Facility Investigation of Sites at Fort Campbell, Kentucky Volume II of II	SWMU's 2, 5, 9, 12/15 and 28 Beaver, Blue, Boiling, Dennis, Gate 1, and Quarles Springs	Arthur D. Little
45	06/1997	Confirmatory Sampling SWMU 36- Abandoned Waste Oil Tank	SWMU 36	by US Army Corps of Engineers, Nashville District
46	06/1997	Solid Waste Management Unit 141, Range 17 Construction Debris Landfill Fort Campbell, Kentucky	SWMU 141	HAZWRAP
47	06/1997	Solid Waste Management Unit 146, Old Clarksville Base Blivet Repair Area Fort Campbell, Kentucky	SWMU 146	HAZWRAP
48	06/1997	RCRA SWMU Assessment and RCRA Facility Investigation Fort Campbell, Kentucky Volume I of III	SWMU's 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149	Arthur D. Little
49	06/1997	RCRA SWMU Assessment and RCRA Facility Investigation Fort Campbell, Kentucky Volume II of III	SWMU's 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149	Arthur D. Little
50	06/1997	RCRA SWMU Assessment and RCRA Facility Investigation Fort Campbell, Kentucky Volume III of III	SWMU's 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149	Arthur D. Little
51	06/1997	RCRA SWMU Assessment and RCRA Facility Investigation Fort Campbell, Kentucky Supplemental Volume Chemical Data	SWMU's 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149	Arthur D. Little
52	09/1997	Final Technical Memorandum U.S. Army Fort Campbell, Kentucky Geophysical Surveys	SWMU's 149, 12/15 and 152	Weston Geophysical Corporation
53	09/1997	Historical Photogeological Analysis of Surface Terrain Features	Cantonment Area Report and CD	by U.S. Army Topographic Engineering Center for the U.S. Army Corps of Engineers
54	09/1997	1997 Hydrogeology Update Report	Hydrogeology Report	Arthur D. Little
55	10/1997	Solid Waste Management Units 95, 96, and 97 Waste Oil Tanks at Building 7010	SWMU's 95 thru 97	by CKY Inc. for U.S. Department of Energy
56	10/1997	Solid Waste Management Units 98 and 99 Waste Oil Tanks at Building 5739	SWMU's 98 and 99	by CKY Inc. for U.S. Department of Energy

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DOC #	DATE	DOCUMENT_TITLE	DESCRIPTION	AGENCY
57	03/1998	RCRA Year-End Summary Report of the 1997 Quarterly Groundwater Sampling Results	Monitoring Wells	HAZWRAP
58	04/1998	Monitoring and Sampling of Groundwater Wells at Fort Campbell Army Airfield, Fort Campbell, Kentucky	Campbell Army Airfield Monitoring Wells	by BAT Associates, Inc. for U.S. Army Corps of Engineers, Nashville District
59	06/1998	Phase III RCRA Facility Investigation Oil/Water Separators	Oil/Water Separators	by ERM Program Management Company for U.S. Army Corps of Engineers, Nashville District
60	06/1998	Solid Waste Management Units 95, 96, 97, 98, and 99 Waste Oil Tanks at Building 7010 and Building 5739	SWMU's 95 thru 99	by CKY, Inc. for U.S. Department of Energy
61	07/1998	RCRA Final Confirmatory Sampling Report Solid Waste Management Unit 156 Directorate of Public Works Pole Yard	SWMU 156	by HAZWRAP for U.S. Department of Energy
62	09/1998	Fort Campbell Landfill 7 Remediation Activities; Woodchipper, bulldozers, rock rakes	SMWU 7 (Video)	STEP, Inc.
63	09/1998	Report for the RCRA Facility Investigation (RFI) Conducted at SWMU 158 Campbell Army Airfield	SWMU 158	by BAT Associates, Inc. for
64	10/1998	Engineering Report for the RFI of SWMU 147 and Facility Assessment of AOC I at Fort Campbell, Kentucky	SWMU 147 and AOC I	by Science Applications International Corporation for US Army Corps of Engineers, Nashville District
65	11/1998	Oil/ Water Separator Directory	Oil/Water Separators	by Program Management Company for U.S. Army Corps of Engineers, Nashville District
66	01/1999	Phase I Ground Truthing Investigation as Part of of the Master RFI at Campbell Army Airfield, Fort Campbell, Kentucky	Campbell Army Airfield	HAZWRAP
67	03/1999	Oil Water Separator Clean-outs and Inspections	Oil/Water Separators	by Program Management Company for the US Army Corps of Engineers, Nashville District
68	03/1999	Area of Concern (AOC) E Wastewater Underground Storage Tank at Building 7741, Former Weapons Storage Area	AOC E	by STEP, Inc. for U.S. Army Department of Energy
69	03/1999	Interim Corrective Action Building 3902 (SWMU 36)	SWMU 36	by Environmental Chemical Corporation (ECC) for US Army Corps of Engineers, Nashville District
70	04/1999	Year End Summary Report of the 1998 Quarterly Groundwater Sampling Results (October 1997 thru September 1998)	Monitoring Program	by HAZWRAP
71	06/1999	Radiological Surveys of Former Atomic Energy Commission/Department of Defense Facilities on Old Clarksville Base	Buildings 7825, 7874 and 7811	by T N & Associates, Inc. for U.S. Department of Energy
72	07/1999	Tracer Tight Leak Test	UFSS and UST's at Campbell Army Airfield	by Tracer Research Corporation for US Army Corps of Engineers, Nashville District
73	09/1999	Master Environmental GIS Database Data Management and Technical Specification Document for Fort Campbell, Kentucky	Tech Spec Document	by Harding Lawson Associates, Inc. for Corps of Engineers, Nashville District
74	10/1999	1998 Hydrogeology Report Update	Hydrogeology Report	by Arthur D. Little, Inc. for U. S. Department of Energy
75	12/1999	Surface Water Runoff Study from CAAF '99 Hydrogeological Characterization Program	Campbell Army Airfield	by U.S. Army Corps of Engineers, Nashville District
76	12/1999	Final Investigation Report for An Interim Corrective Measure and Confirmatory Sampling at AOC J Carcass Burial Ground	AOC J	by STEP, Inc for U.S. Department of Energy

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DOC #	DATE	DOCUMENT_TITLE	DESCRIPTION	AGENCY
77	01/2000	Phase III RCRA Facility Investigation Work Plan for Wastewater Treatment Plant Sludge Dumping Area, Solid Waste Management Unit 48	SWMU 48	by Arthur D. Little, Inc. for U. S. Army Corps of Engineers, Nashville District
78	01/2000	Final RCRA Facility Investigation Confirmatory Sampling Report at Solid Waste Management Units 138, 159, and 164 Volume I of V Text, Tables and Figures	SWMU's 138, 159 and 164	by T N & Associates, Inc. for U.S. Department of Energy
79	01/2000	Final RCRA Facility Investigation Confirmatory Sampling Report at Solid Waste Management Units 138, 159, and 164 Volume II of V Analytical Data	SWMU's 138, 159 and 164	by T N & Associates, Inc. for U.S. Department of Energy
80	01/2000	Final RCRA Facility Investigation Confirmatory Sampling Report at Solid Waste Management Units 138, 159, and 164 Volume III of V Analytical Data	SWMU's 138, 159 and 164	by T N & Associates, Inc. for U.S. Department of Energy
81	01/2000	Final RCRA Facility Investigation Confirmatory Sampling Report at Solid Waste Management Units 138, 159, and 164 Volume IV of V Analytical Data	SWMU's 138, 159 and 164	by TN & Associates, Inc. for U.S. Department of Energy
82	01/2000	Final RCRA Facility Investigation Confirmatory Sampling Report at Solid Waste Management Units 138, 159, and 164 Volume V of V Analytical Data	SWMU's 138, 159 and 164	by TN & Associates, Inc. for U.S. Department of Energy
83	01/2000	Final Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Confirmatory Sampling (CS) Report at SWMU's 140, 148, 152, 153, and 149 Volume I of VI Text, Tables and Figures	SWMU's 140, 148, 152, 153 and 149	by T N & Associates, Inc. for U.S. Department of Energy
84	01/2000	Final Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Confirmatory Sampling (CS) Report at SWMU's 140, 148, 152, 153, and 149 Volume II of VI Appendix A Analytical Data	SWMU's 140, 148, 152, 153 and 149	by T N & Associates, Inc. for U.S. Department of Energy
85	01/2000	Final Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Confirmatory Sampling (CS) Report at SWMU's 140, 148, 152, 153, and 149 Volume III of VI Appendix A Analytical Data (Cont'd)	SWMU's 140, 148, 152, 153 and 149	by T N & Associates, Inc. for U.S. Department of Energy

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86	01/2000	Final Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Confirmatory Sampling (CS) Report at SWMU's 140, 148, 152, 153, and 149 Volume IV of VI Appendix A Analytical Data (Cont'd)	SWMU's 140, 148, 152, 153 and 149	by TN & Associates, Inc. for U.S. Department of Energy
87	01/2000	Final Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Confirmatory Sampling (CS) Report at SWMU's 140, 148, 152, 153, and 149 Volume V of VI Appendix A Analytical Data (cont'd)	SWMU's 140, 148, 152, 153 and 149	by T N & Associates, Inc. for U.S. Department of Energy
88	01/2000	Final Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Confirmatory Sampling (CS) Report at SWMU's 140, 148, 152, 153, and 149 Volume VI of VI Appendices B, C and D	SWMU's 140, 148, 152, 153 and 149	by TN & Associates, Inc. for U.S. Department of Energy
89	01/2000	Final Data Summary for Removal Action and RCRA Facility Investigation at Solid Waste Management Unit 160, Waste Water Treatment Plant	SWMU 160	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
90	02/2000	Confirmatory Sampling at the Sinkhole at 30th and Colorado (AOC K)	AOC K	by PMC for US Army Corps of Engineers, Nashville District
91	02/2000	Oil Water Separator Clean Out Report Fort Campbell	Oil Water Separator Clean Out Report	by AIMTECH for U.S. Department Of Energy
92	03/2000	Final Data Summary for Confirmatory Sampling at Solid Waste Management Unit 166, Underground Storage Tank Pit 5628	SWMU 166	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
93	03/2000	Investigation Report for an Interim Corrective Measure and Confirmatory Sampling at SWMU 167 (DRMO)	SWMU 167	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
94	03/2000	Final Data Summary for Phase II RCRA Facility Investigation of Solid Waste Management Unit 138	SWMU 138	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
95	03/2000	Investigation Report for Removal Action and RCRA Facility Investigation (RFI) at SWMU 160, Wastewater Treatment Plant	SWMU 160	by STEP, Inc. for U.S. Army Corps of Engineers, Nashville District
96	03/2000	Final Investigation Report for Removal and Subsurface Investigation of Inactive Fuel Lines at AOC D and Pumphouse 1	AOC A and AOC D	by STEP for US Army Corps of Engineers, Nashville District
97	04/2000	RCRA Confirmatory Sampling Report for Addendum 13 (SWMU 163) 584th Maintenance Battery Service Room	SWMU 163	by STEP, Inc. for U.S. Army Corps of Engineers, Nashville District
98	04/2000	Campbell Army Airfield, Drain Line, Installation of Bentonite Barriers Completion Report	Campbell Army Airfield	by STEP, Inc. for U.S. Army Corps of Engineers, Nashville District
99	04/2000	Final Report: Phase I RCRA Facilities Investigation and Interim Removal Action at AOC O (Central Energy Facility)	AOC O	by PMC (Program Management Company) for U.S. Army Corps of Engineers, Nashville District
100	05/2000	Fort Campbell Risk Assessment Strategy Volume I. (Update No. 1)	Risk Assessment Volume I of II	by AIMTECH for U.S. Department of Energy
101	05/2000	Fort Campbell Risk Assessment Strategy Volume II. (Update No.1)	Risk Assessment Volume II of II	by AIMTECH for U.S. Department of Energy

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102	08/2000	RCRA Confirmatory Sampling Report for Solid Waste Management Unit (SWMU) 14, Construction Debris Landfills 14 and 15	SWMU 14	by AIMTech for the U.S. Department of Energy
103	08/2000	Phase II RCRA Facility Investigation (RFI) at Solid Waste Management Units (SWMU) 134-137, 801st Motorpool	SWMU 134 thru 137 (801st Motorpool)	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
104	08/2000	Phase I RCRA Facilities Investigation (RFI) and Interim Removal Action (IRA) at AOC O, KY (Central Energy Facility)	AOC O	by Program Management Company for the U.S. Army Corps of Engineers, Nashville District
105	10/2000	Final Year-end Summary Report of the 1999 Quarterly Groundwater Sampling Results, Fort Campbell	Monitoring Program	by STEP,Inc for the U.S. Army Corps of Engineers, Nasville District
106	12/2000	RFI/CS Report for Campbell Army Airfield Volume I of IX Text, Tables and Figures	SWMU's 14, 154 and 12/15 AOC's B, C, D, F, G and H	by HAZWRAP for US Department of Energy
107	12/2000	RFI/CS Report for Campbell Army Airfield Volume II of IX Analytical Data	SWMU's 14, 154 and 12/15 AOC's B, C, D, F, G and H	by HAZWRAP for US Department of Energy
108	12/2000	RFI/CS Report for Campbell Army Airfield Volume III of IX Analytical Data	SWMU's 14, 154 and 12/15 AOC's B, C, D, F, G and H	by HAZWRAP for US Department of Energy
109	12/2000	RFI/CS Report for Campbell Army Airfield Volume IV of IX Analytical Data	SWMU's 14, 154 and 12/15 AOC's B, C, D, F, G and H	by HAZWRAP for US Department of Energy
110	12/2000	RFI/CS Report for Campbell Army Airfield Volume V of IX Analytical Data	SWMU's 14, 154 and 12/15 AOC's B, C, D, F, G and H	by HAZWRAP for US Department of Energy
111	12/2000	RFI/CS Report for Campbell Army Airfield Volume VI of IX Geotechnical Analysis	SWMU's 14, 154 and 12/15 AOC's B, C, D, F, G and H	by HAZWRAP for US Department of Energy
112	12/2000	RFI/CS Report for Campbell Army Airfield Volume VII of IX Field Forms	SWMU's 14, 154 and 12/15 AOC's B, C, D, F, G and H	by HAZWRAP for US Department of Energy
113	12/2000	RFI/CS Report for Campbell Army Airfield Volume VIII of IX Groundtruthing Reports	SWMU's 14, 154 and 12/15 AOC's B, C, D, F, G and H	by HAZWRAP for US Department of Energy
114	12/2000	RFI/CS Report for Campbell Army Airfield Volume IX of IX Laboratory Detections	SWMU's 14, 154 and 12/15 AOC's B, C, D, F, G and H	by HAZWRAP for US Department of Energy
115	12/2000	Final Data Summary and Corrective Action Report for Pumphouse 1 Fuel Leak Reconnaissance and Repair	AOC A	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
116	01/2001	Final Data Summary for Phase III RCRA Confirmatory Sampling at 17 Oil Pits, SWMU 149	SWMU 149	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
117	02/2001	Final Data Summary RCRA Interim Removal Action and Confirmatory Sampling at SWMU 164, Fuel Filter House	SWMU 164	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
118	02/2001	Final Report Confirmatory Sampling Investigation at Acid Tanks and Oil/Grease Interceptors (AOC M)	AOC M Acid Tanks and Oil/Grease Interceptors	by PMC for U.S. Army Corps of Engineers, Nashville District

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119	03/2001	Final Report for Oil/Water Separator Integrity Inspections and Isolations	Oil/Water Separators	by Program Management Company for the U.S. Army Corps of Engineers, Nashville District
120	04/2001	Final Year-End Summary Report of the 2000 Quarterly Groundwater Sampling Results	Monitoring Program	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
121	05/2001	Hydrogeologic Characterization Program at Sabre Heliport Area (Final Report)	Sabre Heliport	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
122	05/2001	Abandoned Dump Site Repair & Maintenance Program	Abandoned Dumps	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
123	06/2001	Final Resource Conservation and Recovery Act Confirmatory Sampling Report for Solid Waste Management Unit 84	SWMU 84	by SAIC for the U.S. Army Corps of Engineers, Nashville District
124	06/2001	Final Report on Interim Remedial Action at 30th and A Shau Valley (AOC K-TN)	AOC K	by Program Management Company for the U.S. Army Corps of Engineers, Nashville District
125	07/2001	Final Data Summary for Additional Sampling in Support of a Confirmatory Sampling Effort at Solid Waste Management Unit 148, Old Clarksville Base Fire Training Area	SWMU 148	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
126	07/2001	Final Data Summary for Phase II RCRA Facility Investigation (RFI) at Campbell Army Airfield (CAAF) for Solid Waste Management Unit 154, Geophysical Anomaly, Bldg. 7156, Bldg. 7173 and SWMU 41	SWMU 41 and AOC A	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
127	07/2001	Final Investigation Report for RCRA Interim Removal Action and Confirmatory Sampling at Solid Waste Management Unit 164, Fuel Filter House	SWMU 164	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
128	07/2001	Final Data Summary for Phase III RCRA Facility Investigation/Confirmatory Sampling at Campbell Army Airfield for AOC A (Engine Test Facility) and AOC D (Bulk Fuel Farm)	AOC A and AOC D	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
129	07/2001	Final Data Summary for Phase I RCRA Facility Investigation (RFI), Underground Storage Tank (UST) Soil Cleanup at Solid Waste Management Unit 150	SWMU 150	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
130	07/2001	Final Data Summary for RCRA Confirmatory Sampling at Area of Concern L, Lubrication Racks	AOC L	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
131	07/2001	Final Data Summary , Phase I Resource Conservation and Recovery Act Facility Investigation (RFI), UST Pit 5628 at SWMU 166	SWMU 166	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
132	08/2001	Data Summary for Phase III RCRA Facility Investigation of Solid Waste Management Unit 138	SWMU 138	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
133	08/2001	1999 Hydrogeology Update Report Volume I of II Text, Tables, Figures and Appendices A through B	Hydrogeology Report	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
134	08/2001	1999 Hydrogeology Update Report Volume II of II	Hydrogeology Report	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
135	08/2001	Final Data Summary, Free Product Recovery at Pumphouse 1	AOC A	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
136	08/2001	SWMU and AOC Investigations at Multiple Sites	Werner Park, SWMU 168, AOC I, SWMU 146 and Oil/Water Separators	by Program Management Company for the U.S. Army Corps of Engineers, Nashville District

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137	09/2001	Final Data Summary for Interim Remedial Actions at AOC B, AOC G and AOC H	AOC's B, G and H	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
138	09/2001	Final Sludge Sampling and Removal Report for Oil/Water Separators at Fort Campbell	Sludge sampling and removal for OWS	by SAIC for the U.S. Army Corps of Engineers, Nashville District
139	09/2001	FINAL REPORT: DETERMINATION OF JET FUEL RETENTION IN SOIL	AOC D SWMU 41 ENGINE TEST FACILITY HANGAR 3	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
140	10/2001	Final Standard Sampling and Analysis Plan (Revision 001)	Standard Sampling and Analysis Plan	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
141	10/2001	Final Resource Conservation and Recovery Act Facilities Investigation Generic Work Plan Update No. 2	Generic Work Plan	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
142	10/2001	Final Data Summary for Phase III RCRA Facility Investigation at Solid Waste Management Units 149A and 149F, Oil Pits	SWMU's 149A and 149F	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
143	11/2001	Final Corrective Measures Study for Solid Waste Management Unit 138 (PX Service Station)	SWMU 138	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
144	11/2001	Final Investigation Report for Phase I RCRA Facility Investigation, Underground Storage Tank Soil Cleanup at Solid Waste Management Unit 150	SWMU 150	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
145	11/2001	Final Report for Confirmatory Sampling at Range Control Skeet Ranges and Sabre Hot Fuel Pads	SWMU 171 and Sabre Heliport	by Program Management Company for the U.S. Army Corps of Engineers, Nashville District
146	12/2001	Comprehensive Data Summary for Phase I and II RCRA Facility Investigations at Solid Waste Management Unit 146 (Blivet Repair Facility)	SWMU 146	by Program Management Company for the U.S. Army Corps of Engineers, Nashville District
147	01/2002	Final Data Summary Phase II RCRA/RFI for SWMU 50, Range 31 Disposal Area Addendum 22 to the Generic Work Plan (First sent out in October 2001 and revised in 1/2002 and 5/2003)	SWMU 50 (First sent out in October 2001 and revised in 1/2002 and 5/2003)	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
148	01/2002	Final Data Summary Phase II RCRA Facility Investigation at the Chromium Plating Shop (SWMU 140)	SWMU 140	by SAIC for U.S. Army Corps of Engineers, Nashville District
149	01/2002	2000 Dye Trace Report	Dye Trace Report	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
150	01/2002	2000 Hydrogeologic Characterization Program, Final Report for Water and Sediment Quality of the Springs at Fort Campbell, Kentucky	Hydro Report	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
151	01/2002	Final Data Summary Resource Conservation and Recovery Act Facility Investigation Sinkhole at 30th and A Shau Valley Road Motor Pool (AOC K)	AOC K	by SAIC for the U.S. Army Corps of Engineers, Nashville District
152	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Introduction Volume 1 of 16	SWMU's 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12/15, 22, 24, 25, 28, 33, 41, 42, 47/48 and 50	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
153	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Sanitary and Construction Debris Landfills SWMU's 001-006 Volume 2 of 16	SWMU's 1, 2, 3, 4, 5 and 6	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District

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154	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Sanitary Landfill SWMU 007 Volume 3 of 16	SWMU 7	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
155	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Sanitary Landfill SWMU 008 Volume 4 of 16	SWMU 8	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
156	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Construction Debris Landfill SWMU 009 Volume 5 of 16	SWMU 9	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
157	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Sanitary Landfill SWMU 011 Volume 6 of 16	SWMU 11	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
158	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Fire Training Areas SWMU's 012/015 Volume 7 of 16	SWMU 12/15	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
159	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Battery Maintenance Facility SWMU 022 Volume 8 of 16	SWMU 22	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
160	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Battery Maintenance Faciltiy SWMU 024 Volume 9 of 16	SWMU 24	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
161	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Battery Maintenance Facility SWMU 025 Volume 10 of 16	SWMU 25	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
162	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Old Explosives Detonation Area SWMU 028 Volume 11 of 16	SWMU 28	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
163	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Former Pesticide Mixing and Storage Facility SWMU 033 Volume 12 of 16	SWMU 33	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
164	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Temporary Oasis Rapid Refueling Area SWMU 041 Volume 13 of 16	SWMU 41	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
165	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Satellite Waste Oil Buffaloes SWMU 042 Volume 14 of 16	SWMU 42	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District

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166	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Wastewater Treatment Plant Sludge Drying Beds and Dumping Area SWMU's 047/048 Volume 15 of 16	SWMU's 47 and 48	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
167	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Range 31 Disposal Area SWMU 050 Volume 16 of 16	SWMU 50	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
168	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Appendix B: Ecological Risk Assessment-Supporting Documentation	Appendix B	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
169	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Appendix C through Appendix G	Appendix C through G	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
170	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Appendix H through Appendix N	Appendix H through N	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
171	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Appendix O Volume I of II	Appendix O Volume I of II	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
172	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Appendix O Volume II of II	Appendix O Volume II of II	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
173	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Appendix P	Appendix P	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
174	01/2002	Resource Conservation and Recovery Act (RCRA) Facility Investigation Report Appendix Q, R and S	Appendix Q, R and S	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
175	01/2002	Final Data Summary for SWMU 149 Oil Pits, RCRA Interim Removal Action for Six Oil Pits, Fiscal Year (FY) 2001	SWMU 149	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
176	01/2002	Final Report for Microgravity Pilot Test, Fort Campbell Kentucky	SWMU 138, AOC A, SWMU 140	by Arthur D. Little, Inc. for the U.S. Army Corps of Engineers, Nashville District
177	02/2002	Final Data Summary for Geophysical Anomolies at the Campbell Army Airfield	AOC A	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
178	02/2002	Final Data Summary RCRA Addendum 26 to the Generic Work Plan, Phase II Campbell Army Airfield Master RCRA Facility Investigation at Building 7154 (Hangar 3), Paint Spray Booth (at Building 7156), and Monitoring well CAAF-11	Building 7154 (Hangar), Paint Spray Booth (Building 7156) CAAF-11	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
179	02/2002	Final Data Summary RCRA Site Investigation at SWMU 152, Demolition Landfill (Joe Swing Pool)	SWMU 152	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
180	02/2002	Final Data Summary RCRA Facility Investigation and Confirmatory Sampling at SWMU 32, Golf Course Pesticide Mixing Area	SWMU 32	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
181	02/2002	Final Data Summary RCRA Corrective Action for SWMU 145, Old Skeet Range	SWMU 145	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
182	02/2002	Final Data Summary for Interim Remedial Actions at SWMU 33 (Pesticide Mixing Area)	SWMU 33	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District
183	02/2002	Final Data Summary for RCRA Faciltiy Investigation at AOC A Pumphouse Wells at the Campbell Army Airfield	AOC A	by STEP, Inc. for the U.S. Army Corp of Engineers, Nashville District

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184	05/2002	Final Data Summary RCRA, CS for 27 Oil / Water Separators (FY01) Addendum 14A to the Generic Work Plan	Oil / Water Separators (27) Addendum 14A	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
185	05/2002	Final Data Summary for Phase IV Campbell Army Airfield Master Resource Conservation Recovery Facility Investigation for Free Product Recovery at Pumphouse 1, Pumphouse 2, Monitoring wells 7, 11, 14, 32, Abandoned Fuel Line, and Area of Concern D Addend	Pumphouse 1, Pumphouse 2, Monitoring wells 7, 11, 14, 32, Abandoned Fuel Line, and Area of Concern D	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
186	09/2002	Final: Year End Summary Report of the 2001 Quarterly Groundwater Sampling Results	Monitoring Program	by STEP Inc for the US Army Corps of Engineers, Nashville District
187	10/2002	Final: Data Summary Interim Remedial Measures at SWMU 146,Blivet Repair Facility	SWMU 146	by STEP Inc. for the US Army Corps of Engineers, Nashville District
188	10/2002	Final Data Summary for RCRA Addendum 3D to the Generic Work Plan Excavation and Removal at SWMU 170 and SWMU 149 Oil Pits (FY02)	SWMU 170 SWMU 149	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
189	11/2002	Geophysical Investigations at Campbell Army Airfield	Geophysical Investigations at Campbell Army Airfield	by Argonne National Laboratory
190	11/2002	Final: Data Summary for RCRA Addendum 5H to the Generic Work Plan for the Phase IV RCRA Facility Investigation at Campbell Army Airfield for SWMU 41	SWMU 41	by STEP Inc. for the U.S. Army Corps of Engineers, Nashville District
191	01/2003	Final data Summary for Resource Conservation and Recovery Act Facility Investigation at Solid Waste Management Unit 166, UST 5628 Addendum 15B to the Generic Work Plan	SWMU 166, UST 5628	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
192	01/2003	Final Data Summary RCRA RFI at SWMU 27 (Abandoned Open Burning / Open Detonation) Addendum 30 to the Generic Work Plan	SWMU 27 Addendum 30 to the Generic Work Plan	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
193	01/2003	Final Data Summary for Resource Conservation and Recovery Act Facility Investigation for Area of Concern D, Bulk Fuel Storage Addendum 15B to the Generic Work Plan	AOC D, Bulk Fuel Storage	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
194	01/2003	Final Data Summary for RCRA Site Investigation at SWMU 11, Landfill 11	SWMU 11	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
195	01/2003	Final Data Summary for Resource Conservation and Recovery Act Facility Investigation and Soil Removal for Solid Waste Management Unit 32, Golf Course Pesticide Mixing Area Addendum 3a to the Generic Work Plan	SWMU 32 Addendum 3a to the Generic Work Plan	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
196	01/2003	Final Data Summary for Soil Removal at Solid Waste Management Unit 146, Blivet Repair Facility Addendum 8B to the Generic Work Plan	SWMU 146 Addendum 8B to the Generic Work Plan	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
197	02/2003	Final: Data Summary for Soil Removal and Investigation at AOC I, Contractor's Equipment Yard	AOC I	by STEP Inc. for U.S. Army Corps of Engineers, Nashville District

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198	02/2003	Final Report Maintenance and Reconstruction of Abandoned Dump 16 (SWMU 152, Joe Swing Pool Dump) and Abandoned Dump 17 (SWMU 141) FY02	SWMU 152 SWMU 141	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
199	03/2003	Final Data Summary for RCRA Investigation and Confirmatory Sampling at SWMU 48, Wastewater Sludge Dump FY02	SWMU 48	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
200	03/2003	Final Report Maintenance and Reconstruction of Abandoned Dump (SWMU 11)	SWMU 11 Maintenance and Reconstruction	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
201	04/2003	Final: Data Summary for the Phase IV RCRA Facility Investigation at Campbell Army Airfield Bravo Parking Apron Fort Campbell, Kentucky	Bravo Parking Apron	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
202	05/2003	Final Data Summary Phase II RCRA/RFI for SWMU 50, Range 31 Disposal Area Addendum 22 to the Generic Work Plan (First sent out in October 2001 and revised in 1/2002 and 5/2003)	SWMU 50 (First sent out in October 2001 and revised in 1/2002 and 5/2003)	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
203	05/2003	Final Corrective Measures Study for Solid Waste Management Unit 138, PX Service Station Revision 1	SWMU 138	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
204	05/2003	Final Data Summary for Resource Conservation and Recovery Act Investigation and Confirmatory Sampling Solid Waste Management Unit 154 (Acid Pits), FY02	SWMU 154 (Acid Pits)	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
205	05/2003	Final Data Summary for RCRA Interim Remedial Action for 18 Oil/Water Separators. Addendum 14C to the Generic Work Plan (FY02)	Oil / Water Separators (18) Addendum 14C	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
206	05/2003	Final Year-End Report of the 2002 Quarterly Groundwater Sampling Results Fort Campbell Kentucky	Final 2002 Quarterly Groundwater Sampling Results	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
207	06/2003	RFI and Phase II ESA OWS Sites	SWMU's 155C,71,58, 56,61,67,70,155AM	by BHATE, Inc. for the U.S. Army Corps of Engineers, Nashville District
208	06/2003	RFI and Phase II ESA OWS Sites Data Summary Appendices	SWMU's 155C,71,58, 56,61,67,70,155AM	by BHATE, Inc. for the U.S. Army Corps of Engineers, Nashville District
209	06/2003	Final Data Summary for Resource Conservation and Recovery Act Investigation at SWMU 170 (Lube Racks) Fiscal Year 2002	SWMU 170	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
210	06/2003	Final Data Summary for Campbell Army Airfield Master RCRA Facility Investigation, Phase V, Free Product Recovery at AOC A	AOC A; Phase V	by STEP, Inc. for the U.S. Army Corps of Engineers, Nashville District
211	10/2003	Letter Update for Activities at AOC O, Fort Campbell, Kentucky	AOC O	by STEP,Inc for the U.S. Army Corps of Engineers, Nasville District
212	11/2003	Fort Campbell: Copies of Boring and Well Construction Logs/Various Solid Waste Management Units Volume I	Well Construction Logs	by STEP,Inc for the U.S. Army Corps of Engineers, Nashville District
213	11/2003	Fort Campbell: Copies of Boring and Well Construction Logs/Various Solid Waste Management Units Volume II	Well Construction Logs	by STEP,Inc for the U.S. Army Corps of Engineers, Nasville District

Ft Campbell Previous Studies

DOC #	DATE	DOCUMENT_TITLE	DESCRIPTION	AGENCY
214	11/2003	Fort Campbell: Copies of Boring and Well Construction Logs/Various Solid Waste Management Units Volume III	Well Construction Logs	by STEP,Inc for the U.S. Army Corps of Engineers, Nasville District
215	11/2003	2003 CAAF DATA REVIEW November 2003 "CAAF Visualization" Living Document	CAAF Visualization that is a living document	by STEP,Inc for the U.S. Army Corps of Engineers, Nasville District
216	01/2004	Final 2002 Dye Trace Report, Fort Campbell, Kentucky	2002 Dye Trace Report	by ICF Consulting for U.S. Army Corps of Engineers, Nashville District
217	01/2004	Tracer Tight Leak Test 2003 Annual Testing (3) Aboveground Storage Tanks Tracer Job No. 20805M-AN03	AOC D (Bulk Fuel Farm) Tracer Testing	by Praxair Services, Inc for U.S. Army Corps of Engineers,Nashville District
218	02/2004	Final Data Summary for Resource Conservation and Recovery Act Excavation and Removal at SWMU 149 Oil Pits (FY03)	SWMU 149	by STEP Inc. for U.S. Army Corps of Engineers, Nashville District

Summary

STATUS:	Non-NPL Installation (High Potential for Off-Post Contamination)
TOTAL # OF AEDB-R SITES:	62
ACTIVE ER,A SITES:	9
RC WITH LTM:	3 (FCPB-07, 26, 43)
RC SITES:	50

DIFFERENT SITE TYPES:

4 Fire/Crash Training Areas	7 Contaminated Buildings
1 Contaminated Fill	1 Contaminated Groundwater
4 Surface Disposal Areas	3 Disposal Pit/Dry Wells
1 Firing Range	15 Landfills
1 POL Line	1 Surface Runoff
6 Storage Areas	1 Surface Impoundment/Lagoons
4 Spill Site Areas	1 Sewage Treatment Plant
1 Mixed Waste Area	2 Underground Storage Tanks
1 Radioactive Waste Area	2 Above Ground Storage Tanks
1 Waste Treatment Plant	2 Explosive Ordnance Disposal Areas
1 Unexploded Munitions/Ordnance	
2 Soil Contamination After Tank Removal	

CONTAMINANTS OF CONCERN:	POL, Metals, Solvents, PCBs
MEDIA OF CONCERN:	Soil, Groundwater, Surface Water, Sediment
COMPLETED REM/IRA/RA:	Soil Vapor Extraction at CAAF Pump & Treat at CAAF (FY 92) Cap Landfill (FY 94) *For a complete list see the Remediation Activities Section*

CURRENT IRP PHASES:

RI/FS at 3 sites	IRA at 2 sites
RA at 5 sites	LTM at 4 sites

PROJECTED IRP PHASES:

RI/FS at 3 sites	IRA at 3 sites	RA at 5 sites
RA(O) at 2 site	LTM at 8 sites	

IDENTIFIED POSSIBLE REM/IRA/RA:	IRA at FCPB-38, 52, 64 RA at FCPB-09, 10, 24, 38, 49, 52, 58, 64

DURATION:

Year of IRP Inception:	1984
Year of IRP Completion Excluding LTM/RA(O):	2010
Year of IRP Completion Including LTM/RA(O):	2035

SWMU # to AEDB-R

SWMU#	AEDB-R#	TITLE
1-9, 11	FCPB-26	Sanitary Landfills - TN/KY
6	FCPB-31	Construction Debris Landfill #6 - KY
7	FCPB-32	Construction Debris Landfill #7 - TN
8	FCPB-33	Sanitary Landfill #8 - TN
10	FCPB-01	Waste Oil Dumping Area - TN
11	FCPB-37	Sanitary Landfill #11 - TN
14	FCPB-03	Construction Debris Landfill - KY
19	FCPB-16	PCB Storage Area - TN
20	FCPB-17	Former DS2 Storage Area - TN
21	FCPB-09	NBC Fire Training Area - TN
24, 25	FCPB-23	Battery Maintenance Facilitiies DIO Area - TN
28	FCPB-10	Old OB/OD Area- TN
31	FCPB-06	Sabre Heliport Dump Site - TN
32	FCPB-15	Golf Course Pesticide Mixing Area - TN
33	FCPB-07	Pesticide Storage & Mixing Facility
37A-AP	FCPB-18	Satellite Accumulation Areas - TN
41	FCPB-19	Temporary Oasis Rapid Refueling Area - KY
42	FCPB-21	Satellite Waste Oil Buffalo (Tanks) - TN/KY
48	FCPB-24	Wastewater Sludge Dump - TN
50	FCPB-20	Shootong Range 31 - KY
134-137	FCPB-40	801st Motor Pool Gravel Pits (4 Sites) - TN
139	FCPB-42	Clarksville Base Waste Burial Area - TN
140	FCPB-43	Clarksville Base Chromium Plating Shop - TN
141	FCPB-44	Construction Debris Landfill - KY
142	FCPB-45	Soil Incinerators Area - TN
144	FCPB-47	Post Laundry - TN
145	FCPB-48	Old Skeet Range - TN
146	FCPB-49	Blivet Repair Area - TN
148	FCPB-51	Clarksville Base Fire Training Area - TN
149	FCPB-52	Oil Pits - KY/TN
150	FCPB-53	UST Soil Clean Up - TN
151A-D	FCPB-54	UST Contaminated Soil Clean Up - TN/KY
152	FCPB-57	Demolition Landfill (Joe Swing Pool) - TN
153	FCPB-58	Demolition Area 18 - TN
154	FCPB-62	CAAF Acid Pits - KY
160	FCPB-63	Abandoned WWTF Old Clarksville Base - TN
170	FCPB-64	Lube Racks - KY/TN
171	FCBP-65	Former Skeet Range
AOC A	FCPB-38	Campbell Army Airfield - KY
AOC B	FCPB-04	JP4 Spill - KY
AOC C	FCPB-39	Diesel Spill - KY
AOC E	FCPB-55	Nuclear Storage Facility (Abandoned) - TN
AOC G	FCPB-59	Outfall C (Fuel Pits) CAAF - KY
AOC H	FCPB-60	Outfall H (Tank Farm) CAAF - KY

AEDB-R # to SWMU

AEDB-R#	SWMU#	TITLE
FCPB-01	10	Waste Oil Dumping Area - TN
FCPB-03	14	Construction Debris Landfill - KY
FCPB-04	AOC B	JP4 Spill - KY
FCPB-06	31	Sabre Heliport Dump Site - TN
FCPB-07	33	Pesticide Storage & Mixing Facility
FCPB-09	21	NBC Fire Training Area - TN
FCPB-10	28	Old OB/OD Area- TN
FCPB-15	32	Golf Course Pesticide Mixing Area - TN
FCPB-16	19	PCB Storage Area - TN
FCPB-17	20	Former DS2 Storage Area - TN
FCPB-18	37A-AP	Satellite Accumulation Areas - TN
FCPB-19	41	Temporary Oasis Rapid Refueling Area - KY
FCPB-20	50	Shootong Range 31 - KY
FCPB-21	42	Satellite Waste Oil Buffalo (Tanks) - TN/KY
FCPB-23	24, 25	Battery Maintenance Facilitiies DIO Area - TN
FCPB-24	48	Wastewater Sludge Dump - TN
FCPB-26	1-9, 11	Sanitary Landfills - TN/KY
FCPB-31	6	Construction Debris Landfill #6 - KY
FCPB-32	7	Construction Debris Landfill #7 - TN
FCPB-33	8	Sanitary Landfill #8 - TN
FCPB-37	11	Sanitary Landfill #11 - TN
FCPB-38	AOC A	Campbell Army Airfield - KY
FCPB-39	AOC C	Diesel Spill - KY
FCPB-40	134-137	801st Motor Pool Gravel Pits (4 Sites) - TN
FCPB-42	139	Clarksville Base Waste Burial Area - TN
FCPB-43	140	Clarksville Base Chromium Plating Shop - TN
FCPB-44	141	Construction Debris Landfill - KY
FCPB-45	142	Soil Incinerators Area - TN
FCPB-47	144	Post Laundry - TN
FCPB-48	145	Old Skeet Range - TN
FCPB-49	146	Blivet Repair Area - TN
FCPB-51	148	Clarksville Base Fire Training Area - TN
FCPB-52	149	Oil Pits - KY/TN
FCPB-53	150	UST Soil Clean Up - TN
FCPB-54	151A-D	UST Contaminated Soil Clean Up - TN/KY
FCPB-55	AOC E	Nuclear Storage Facility (Abandoned) - TN
FCPB-57	152	Demolition Landfill (Joe Swing Pool) - TN
FCPB-58	153	Demolition Area 18 - TN
FCPB-59	AOC G	Outfall C (Fuel Pits) CAAF - KY
FCPB-60	AOC H	Outfall H (Tank Farm) CAAF - KY
FCPB-62	154	CAAF Acid Pits - KY
FCPB-63	160	Abandoned WWTF Old Clarksville Base - TN
FCPB-64	170	Lube Racks - KY/TN
FCBP-65	171	Former Skeet Range

Fort Campbell

ER,A ELIGIBLE AEDB-R SITES

FCPB-07 SWMU 33
PESTICIDE MIXING AND STORAGE FACILITY - TN

SITE DESCRIPTION

This SWMU, located on East End Road west of the wastewater treatment plant on the Old Clarksville Base, operated from 1950-1985. It consists of a room within a building and a septic system with a leach field just outside the building. The room has a concrete floor and a sink that was used for the mixing of pesticides. Results from an RFI conducted in 1996 indicated risks to ecological receptors due to residual pesticides found in surface soils along the old surface drainage ditch. Pesticides, above MCLs, have been detected in groundwater at this site. A soil (31cy) removal was completed in Aug 2001, however residual contamination above risk-based screening levels remained.

In summer 2003, ~100cy of soil will be removed, riprap will be put in place and confirmatory samples will be taken.

In 2004, soil samples were taken and the results are not available. Groundwater sampling was taken; no detections were above MCLs, but have been in past sampling.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

Pesticides

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, IRA, RI/FS

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

LTM

PROPOSED PLAN

Additional groundwater samples will be taken in 2004. Ft Campbell needs three clean rounds of groundwater sampling to close the site and abandoned the wells (currently scheduled for 2006).

FCPB-09 SWMU 21
NBC FIRE TRAINING AREA - TN

SITE DESCRIPTION

This unit is located in an approximately 50 x 100 ft low area in a field just west of the nuclear, biological and chemical (NBC) training staging area, east of Range Road. JP-4 jet fuel, gasoline and other hydrocarbons were poured into a metal trough (~50 ft, still in place) and ignited for the training of soldiers on the use of fire as a weapon. Sampling indicated that past practices (including pouring fuel directly on the ground) contaminated the groundwater at the site with TCE above MCLs.

In FY02, an interim remedial action conducted at FCPB-26 (enhanced bioremediation) determined that the TCE contamination in groundwater was not attributed to FCPB-26 (Sanitary Landfills), but rather to FCPB-09, the NBC Fire Training Area. Results from analysis determined that the mixture of contaminants at FCPB-26 was exclusive to wells at the landfills.

In FY03, two rounds of sampling were performed and data was evaluated to determine effectiveness of enhanced bioremediation.

In FY04, lactate mixture will be injected in four wells and four rounds of bio-enhancement monitoring sampling will be performed.

STATUS

RRSE RATING: High

CONTAMINANTS:

Chlorinated Compounds, POL

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS

CURRENT IRP PHASE:

FRA, LTM

FUTURE IRP PHASE:

LTM

PROPOSED PLAN

Groundwater sampling will continue at this site in addition to bio-enhancement monitoring. Another lactate injection (followed by monitoring) will be performed in FY05. Site is expected to reach response complete status by the end of FY05.

FCPB-10 SWMU 28
OLD OB/OD AREA

SITE DESCRIPTION

This site is an approximately 5 acre area surrounded by 10 to 12 ft high soil berms located off McNair Road adjacent to Old Clarksville Base. The site was used for detonation and burning of unexploded ordnance (from Old Clarksville Base) until the late 1960s. After that, it was used as a tire dump and a dump for appliances, pallets, and old blivets (rubber, water or fuel storage bags). In 1989, the tires and other materials were removed from the site. Much of the berm and interior area is devoid of vegetation. This site was fenced in 1996.

During an RFI conducted in 1996, an ~700 x 400 ft RDX/HMX plume was detected in the shallow groundwater. The plume appears to be stable. Soil samples did not detect explosives. Recent sampling has shown increased RDX/HMX levels in 3 wells.

STATUS

RRSE RATING: High

CONTAMINANTS:

HMX, RDX

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS

CURRENT IRP PHASE:

RA (C)

FUTURE IRP PHASE:

RA (C), LTM

PROPOSED PLAN

Six wells at the site will continue to be monitored semi-annually for RDX/HMX.

A groundwater treatment may be needed if RDX levels continue to increase.

FCPB-24 SWMU 48
WASTEWATER SLUDGE DUMP - TN

SITE DESCRIPTION

The sludge dump existed from the early 1970s and was located on an approximately 300 x 50 ft unpaved area along the access road to the wastewater drying beds. The unit was used to store sludge from drying beds. Some of the sludge was removed in 1991.

In 1995, sampling conducted as part of an RFI at FCPB-22 indicated that the Wastewater Drying Beds were not a source of soil and sediment contamination, however, shallow soils and sediment contamination is present downgradient of FCPB-24. Additional sampling in FY99 determined there was no risk in surface water and sediment. In FY02, 6 test pits were sampled. Four of the six pits were found to be contaminated with PCBs above RBSLs.

STATUS

RRSE RATING: High

CONTAMINANTS:

PCBs

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, Phase I RI

CURRENT IRP PHASE:

RI/FS, RA(C)

FUTURE IRP PHASE:

RC

PROPOSED PLAN

Additional nature and extent delineation will be conducted. Soil removal will be conducted if soils are determined to be at risk.

FCPB-26 SWMU 1-4, 6-9, 11, 14 & 141
SANITARY LANDFILLS (SWMUS 1-4) - KY/TN

SITE DESCRIPTION

FCPB-26 through FCPB-30 were combined and will be addressed as one unit under the SWMUG concept as FCPB-26. Each SWMU is an abandoned landfill with a combined area of ~128 acres. The landfills are located east of Range Road between 18th and 42nd Streets in one geographic area. They accepted all installation refuse from 1955-1985 including residential waste, paint, unauthorized construction debris, and TCE/JP-4 fuel-contaminated sludge. Daily and final cover conditions during operation are not known. The sites are currently covered with grass. A storm water drain (54-inch) runs underneath Landfill #5. The cover is maintained under the installation's maintenance and compliance program.

TCE above MCLs has been detected in the groundwater near Landfill 2. In FY02, enhanced bioremediation was conducted at Landfill 2 to address the TCE contamination. In FY03 it was determined that TCE is associated with FCPB-09 (Fire Training Area).

STATUS

RRSE RATING: High
CONTAMINANTS:
Metals, SVOCs, VOCs
MEDIA OF CONCERN:
Groundwater
COMPLETED IRP PHASE:
PA/SI, RI/FS, IRA
CURRENT IRP PHASE:
RIP with LTM
FUTURE IRP PHASE:
RC

RCRA monitoring for FCPB-26-34, FCPB-03, FCPB-37 and FCPB-44 will be funded under this site.

At the April 2003 Groundwater Meeting, sampling criteria for these sites was established (Fort Campbell Groundwater Sampling Plan).

Landfill 5 will be funded under OMA because it is permitted.

PROPOSED PLAN

Continue to update the Installation Restoration Program data base with site data. Long-term monitoring will continue.

FCPB-38 AOC A
CAMPBELL ARMY AIRFIELD - KY

SITE DESCRIPTION

Campbell Army Airfield (CAAF), the Army's largest airfield, is located in the northeastern corner of Fort Campbell. The karst geology creates a high potential for contaminants/free product to migrate off-post during extreme water level variation. The surface water may also be affected by contaminants from multiple sites located on the Airfield. Due to complex groundwater flow patterns, critical off-site releases could occur. Based on the review of an RI/FS conducted by Dames & Moore in 1992, IRAs and FSs were conducted at selected areas within the CAAF. Additional focused studies may required to accurately determine the extent of the JP-4, JP-8 and chlorinated solvent contamination and groundwater movement at the Airfield. Specifically, the tank farm, (Outfall H), and the underground concrete collection vault (Outfall C) must be investigated as part of the site characterization. Previous dye traces have shown at least three apparent groundwater basins/flow patterns.

A free product recovery system (22 wells) has been in operation since December 1992 as an interim measure, until further characterization studies were completed to determine a final RA.

STATUS

RRSE RATING: High

CONTAMINANTS:

Chlorinated Solvents, POL, Metals

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI, IRA

CURRENT IRP PHASE:

RI/FS, IRA

FUTURE IRP PHASE:

RI/FS, IRA, RA, RA(O)

During FY97, CAAF was classified as a Solid Waste Management Unit Group (SWMUG) by the Commonwealth of Kentucky. This action included all SWMUs located within and directly adjacent to the airfield. This SWMUG includes AEDB-R #: FCPB-03, 04, 19, 35, 36, 38, 39, 59, 60, and 62. Specific site details for each site can be found in in the Response Complete Site Section.

Groundwater contamination at the SWMUG was confirmed and all sites have been grouped together for assigning relative risk. The SWMUG has a high relative risk rating based on groundwater contamination. All sites were investigated under the CAAF Master RI to determine if they are contributing to known groundwater contamination. If any site is determined to be a contributor to the groundwater contamination, it will be included in the SWMUG remedial action plan and if not a contributor, appropriate actions will be taken to classify it as RC.

Inventories, past practices and previous findings indicate release of a large volume of contaminants from multiple sources. Additional studies to determine groundwater flow patterns were essential to evaluate the groundwater pathways and nature of contaminant movement in a complex, highly mantled, karst aquifer.

A groundwater sampling program was initiated during FY96 to further isolate and define the source of the contamination. Activities for FY97 included the initiation of a lineament, fault trace and depression analysis in conjunction with a geophysical program at AOC A and the south end of the runway. All available data from previous studies are being consolidated for inclusion in a comprehensive database. A regional potentiometric surface map was produced during FY97. Also during FY97, a groundwater symposium was held to review and analyze known groundwater characteristics and receive input and peer review from karst geology experts.

FY98 activities included additional geophysical surveys, GW monitoring, a second GW symposium, issue of the Final Potentiometric Surface Map (Dry Conditions), and initiation of the Master RI.

FY99 activities included additional soil and GW sampling, trace test, ground truthing of geophysical data, third GW symposium, removal of 100 ft of pipeline, visually inspected piping joints between Pump House 1 and 2, and assembled the 1st CAAF visualization for review and interpretation by team members. An additional 2 potential sources, area in and around Bldgs 7173 & 7176, were identified and were characterized.

In FY00, activities included a SVE pilot study, soil and GW sampling, geophysical investigation, quarterly GW monitoring, weekly water level testing, placement of rip-rap at the outfall of AOC G & H, soil removal at AOC B, and some tank, line, joint and valve verification, testing and removal.

In FY01, activities included design and implementation of SVE at hangars 3 and 4 which included the installation of 20 extraction wells and removal of more than 10,000 equivalent gallons of fuel.

In FY02, an additional 25,000 equivalent gallons were extracted, a government owned SVE system was installed, 50 extraction wells were installed, 2 wells were installed at SWMU 41, performed a soil gas survey at Bravo Apron and AOC D.

In FY03, an additional 25,000 equivalent gallons were extracted, 18 additional extraction wells were installed. Other FY03

SITE DESCRIPTION

activities included removals at FCPB-35/36 (lead contaminated soil), pilot studies of groundwater treatment (HRC injection) for chlorinated solvents at FCPB-35/36, trench investigation at AOC B, and semi-annual groundwater monitoring at FCPB#'s 3, 35, 36, 38 and 41.

In FY03, the government owned SVE system removed ~30,171 equivalent gallons of product in 39 weeks of operation. 18 additional extraction wells were installed and mobile vacuum extraction removed an additional 7,196 equivalent gallons of product. Other FY03 activities included; soil removal and a pilot study of groundwater treatment (HRC injection) for chlorinated solvent at FCPB-35/36 (SWMU 12/15), a trench investigation at FCPB-04 (AOC B), soil sampling at Hanger 2 and 4, and groundwater monitoring at FCPB-3, 35, 36, 38 and 41.

As of June 2004, the government owned SVE system has removed ~11,886 equivalent gallons of product during 10 weeks of extraction. Mobile extraction removed 907 gallons of product in three weeks of operation. During FY04, HRC will be injected at Hanger 2 and CAAF 49 to address TCE contamination.

PROPOSED PLAN

Complete consolidation and analysis of the historical and site characterization data, preparation of technical memorandum and site conceptual model(s), identify data gaps, develop a plan for investigation of the data gaps, and commence investigation of those data gaps determined to be critical to the overall characterization of the CAAF groundwater basin. This plan will address protection of receptors potentially impacted from CAAF groundwater.

The following actions may be implemented: groundwater/ surface water monitoring, soil treatment, a water treatment system, investigation into the use of natural attenuation and/or other innovative technologies and exploratory borings/wells.

A combination of contaminant removal, SVE and groundwater treatment programs are expected to take this site to closure.

FCPB-43 SWMU 140
CLARKSVILLE BASE CHROMIUM PLATING SHOP - TN

SITE DESCRIPTION

SWMU 140 consists of a chromium (Cr) plating shop and a nuclear implosion structure located in Building 7811 within the Old Clarksville Base. It is located immediately upgradient of a wetland and Little West Fork Creek. Past practices at this site include the formulation of nuclear components for storage. Operations were changed in 1965 to a weapons chrome plating and metal cleaning facility which was closed in 1993. The facility was designed and constructed to accommodate this type of operation. Groundwater tracing in 1997 has shown a hydrologic connection between this site and Little West Fork Creek.

FY98 actions included installing 3 monitoring wells, sampling the 3 new wells and one existing well and sampling soil at 12 locations. TCE was detected in groundwater at the site above MCLs. Three groundwater monitoring wells were installed in FY01. The Phase II RFI report was finalized in Jan 2002, TCE is still present in 2 wells, 1 of which is above MCLs. Lead is also present above MCLs in 2 wells.

STATUS

RRSE RATING: High

CONTAMINANTS:

VOCs, SVOCs, Metals

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI, RI/FS, RA

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

LTM

In FY03, two additional wells were installed and sampled for VOCs in an area downgradient from the former plating shop. Four soil borings were completed beneath the floor of the building in the plating shop area. One additional soil boring was completed adjacent to the newly discovered UST, near the east end of the building. Soil samples were analyzed for VOCs. TCE was detected in the newly installed wells at concentrations above the MCL . The highest hit of TCE was detected at 91ppb (MCL is 5) in well # 9. Soil samples showed no detections of TCE in exceedance of action levels. A RFI addendum was completed.

PROPOSED PLAN

Enhanced bioremediation efforts are planned to remediate TCE in the groundwater.

FCPB-49 SWMU 146
BLIVET REPAIR AREA BUILDING 7820 - TN

SITE DESCRIPTION

This 3-acre area was used to repair portable, neoprene fuel bladders containing JP-4 fuel and diesel fuel. The damaged fuel bladders were stored on the ground without being emptied of fuel residue. This residue was released onto the ground both outside and inside the repair facility. This disposal practice was discontinued in 1982. The site is located on top of a hill in the Old Clarksville Base surrounding Building 7820 and is upgradient from Little West Fork Creek. Dye tracing, spring reconnaissance, spring sampling, spring gauging, screening risk assessment, and well monitoring were completed and results indicate that groundwater is contaminated with POLs above MCL.

In FY99, a Phase I RFI was conducted and identified extensive groundwater and soil contamination. Surface geophysics was used to place 1 of 3 additional wells. The Phase II RFI was completed in FY00. Samples show TPH and benzene in the groundwater. Air sparging of the groundwater was started in FY02.

In Oct 2002, a soil removal action (~500cy) was completed. The air sparging system was turned off so that this site could be used as an ORC test area. ORC was applied to the open pit prior to backfilling, as a pilot test. A well was installed in FY03, and was dry.

STATUS

RRSE RATING: High

CONTAMINANTS:
VOCs, SVOCs, POL

MEDIA OF CONCERN:
Soil, Groundwater

COMPLETED IRP PHASE:
PA/SI, 2 IRAs, RI/FS

CURRENT IRP PHASE:
RA (C)

FUTURE IRP PHASE:
RA (C), LTM

PROPOSED PLAN

A new well will be installed and additional samples taken in the summer FY04 to evaluate the effectiveness of the ORC injection. It is likely that the air sparging system will be operated for 2 more years.

FCPB-52 SWMU 149 OIL PITS - TN/KY

SITE DESCRIPTION

There are 38 abandoned oil pits and 3 inflammable-material storage sheds (no drainage) within the post cantonment area, where vehicle maintenance was performed. These oil sites are located between 1st Street in the southern portion of the Main Cantonment Area and 59th Street (18 are in TN, 22 are in KY). The oil pits supported POL storage and were disposal sheds, ~10 x 10 ft in size. The foundation of each shed consisted of a concrete slab with up to 5 sumps covered by metal grates which directed oil to a French drain. Groups of two to five sheds drained into a common gravel pit. All sheds were removed, some slabs and grates still exist, and the gravel pits are covered with soil. These sites were in operation between 1942 and the mid 1980s.

In FY98, soil samples were collected at 35 sites. VOCs and SVOCs were detected at 4 of these sites.

In FY99, a trench investigation was conducted at Oil Pits 149 A & F. It was determined that 149 F did not exist. Oil Pit 149 A and most of the contaminated soil (VOCs, SVOCs and TPH) were removed. The groundwater at 149 A is contaminated with lead and TPH above action levels. Monitoring well one at 149A frequently contains free product.

In FY00, an intrusive trench investigation was conducted at 17 sites (149 C, H, J, M, N, P, Z, AA, BB, CC, EE, FF, HH, KK, LL, MM, NN) and 2 pits were removed (149LL, NN).

In FY01, 6 oil pits were removed (149 C, N, P, Z, CC, KK).

In FY02, 6 oil pits were removed (149 D, E, G, K, Q, R).

In FY03, 8 oil pits were removed (149 B, O, S, T, U, V, Y, W).

To date, 21 sites have been recommended for NFA (149 B, G, H, J, L, M, O, Q, S, T, U, V, W, AA, BB, EE, FF, HH, LL, MM, NN). Two sites have been recommended for institutional controls (149 I, II) because they are too close to a building to remove.

STATUS

RRSE RATING: High

CONTAMINANTS:

POL, Metals, PCBs, SVOCs

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS, IRA

CURRENT IRP PHASE:

IRA

FUTURE IRP PHASE:

IRA, RA (C), RA(O), LTM

PROPOSED PLAN

Conduct additional investigation at the remaining 4 (149 X, DD, GG, JJ) oil pits with suspected or confirmed oil pit structures/components.

Perform groundwater treatment (air sparging) at 8 oil pits (149 A, C, D, E, K, N, P, R) and at 2 of the 4 sites (149 X, DD, GG, JJ) yet to be removed.

FCPB-58 SWMU 153
DEMOLITION AREA 18 - TN

SITE DESCRIPTION

This site consists of an abandoned quarry, of approximately 5 acres, which was subsequently used as an explosive demolition area. The site is bounded on the north by Mabry Road, the south by Engineers Road and on the east by Palmyra Road. The area is somewhat sparse of vegetation and has eroded to some extent. Piney Fork Creek flows along the southern edge of the area and empties into Little West Fork Creek some distance down stream of the site. Little West Fork Creek contributes to the installation's drinking water supply. Surface water and sediment samples show no impact.

Six soil borings (three were converted to groundwater wells), and four surface water sediment pairs were taken in FY98. Soil samples contained explosives below action levels. RDX was detected in two groundwater wells above PRGs.

STATUS

RRSE RATING: High

CONTAMINANTS:

RDX

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS

CURRENT IRP PHASE:

RA (C)

FUTURE IRP PHASE:

LTM

PROPOSED PLAN

Four additional rounds of groundwater sampling will be completed. 6 wells will be sampled semi-annually in FY05. Sampling frequency was increased to closely monitor the RDX levels as TN may require a RA to address RDX contamination in groundwater.

FCPB-64 SWMU 170
LUBE RACKS - TN/KY

SITE DESCRIPTION

This site consists of 81 lubrication/inspection racks designed during World War II for the primary purpose of facilitating the inspection of motorized vehicles. They were also used to facilitate motor oil changes. Based on the demolition and inspection of some in recent years, large amounts of oil were discharged to the soil beneath the racks.

In FY00, an installation wide inventory of vehicle racks including visual inspection and records search was conducted. Twenty-three (23) of the 81 racks are active and therefore not eligible for IRP funds. The remaining 58 racks are eligible for ER,A funds. Of these 58 sites, 43 sites do not have structures.

In FY01, confirmatory sampling was conducted at three sites (170A, B, D). Service rack 170A and associated contaminated soil was removed.

Preliminary soil gas sampling at 20 rack locations was completed in FY02. Seventeen of those 20 were recommended for CS.

In FY03, a CS was performed at the seventeen sites investigated in FY02 and soil-gas surveys, in addition to CS, were conducted at 23 sites. Of the 40 total sites investigated in FY03, 37 were recommended for NFA.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RI/FS, IRA, RA, LTM

PROPOSED PLAN

The 14 sites with structures and associated contamination will be removed. One site with known contamination will be adressed, a CMS will be conducted at 170Z11 and 2 (170Z9, 170Z21) additional sites will be investigated.

FCPB-65 SWMU 171
FORMER SKEET RANGE - TN

SITE DESCRIPTION

These two former skeet ranges are located on Screaming Eagle Blvd just north of the Range Control building (Building 6087). The two skeet ranges occupied approximately eight acres, and were used from the early 1940s to the 1960s for recreational skeet shooting.

Contaminants of concern include PAHs from the clay skeet targets and lead from shot. Results from the confirmatory sampling (Sept. 01) indicate surface soil is impacted by PAHs and lead above risk based industrial screening levels.

STATUS

RRSE RATING: High

CONTAMINANTS:

PAHs, Lead

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

None

FUTURE IRP PHASE:

RI/FS

PROPOSED PLAN

Additional delineation is planned.

Fort Campbell

ER,A ELIGIBLE
RESPONSE COMPLETE
AEDB-R SITES

FCPB-01 SWMU 10
WASTE OIL DUMPING AREA - TN

SITE DESCRIPTION

SWMU-10 is located off McNair Road between the southwest corner of the Old Clarksville Base and the Old Explosive Detonation Area (SWMU #28) in Tennessee. Suspected dumping of ~300 gallons of what appeared to be waste oil occurred in July of 1988. The responsible party(s) was not identified. The unit has a maximum elevation of 588 ft and a low of 578 ft. The nearest surface water is a northerly flowing, intermittent stream located about 3,000 ft north of the site. This tributary of Little West Fork Creek contains water only after periods of high precipitation.

No further action is required.

STATUS

RRSE RATING: Low
CONTAMINANTS:
POLs, Solvents
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI
CURRENT IRP PHASE:
RC - 1995

FCPB-03 SWMU 14
CONSTRUCTION DEBRIS LANDFILL- KY

SITE DESCRIPTION

This abandoned borrow pit/landfill, approximately 7 acres, was used for the disposal of construction debris prior to 1990 and is located adjacent to Campbell Army Airfield (CAAF) off Angels Road. Contents were removed to a permitted landfill in 1989. Subsequently, unauthorized disposal of construction debris has occurred at this site. During fiscal year 1997, additional cover was applied and graded for positive drainage.

This site is part of the Solid Waste Management Unit Group (SWMUG) associated with CAAF. As such, it will require investigation in conjunction with FCPB-38 to fill a CAAF groundwater data gap. Three wells (2 down gradient, 1 up gradient) were installed (FY98) to determine if this site is contributing to the SWMUG contamination.

STATUS

RRSE RATING: High
CONTAMINANTS:
POLs, Solvents
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1998

FCPB-04 AOC B
JP 4 SPILL - KY

SITE DESCRIPTION

This approximately 200-gallon spill of JP-4 occurred at CAAF in 1987. This site is located in the southwest corner of CAAF. This site is part of the Solid Waste Management Unit Group (SWMUG) associated with CAAF. As such, it will require investigation in conjunction with FCPB-38 to fill a CAAF groundwater data gap.

Soil samples taken in FY98 found lead in one sample. Soil was removed in FY00 and residual lead contamination remains. A soil removal was completed (funded under FCBP-38).

This site is listed as RC, if any additional work is needed at this site it will addressed under FCPB-38.

STATUS

RRSE RATING: High

CONTAMINANTS:

Lead

MEDIA OF CONCERN

Soil

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

RC **- 1998**

FCPB-06 SWMU 31
SABRE HELIPORT DUMPSITE - TN

SITE DESCRIPTION

This is an active site and is not eligible for ER,A funding.

This unit consisted of an irregularly shaped ditch with approximate dimensions of 10 ft wide and 70 ft long. It contained several drums of waste disposed at an unknown date. The unit was discovered during grading operations for construction of new facility pads. The drums and contaminated soil were removed under supervision of the TDEC who required that the facility obtain soil samples, determine success of clean-up, and install monitoring wells to determine if ground water was affected. The site was remediated in 1989 and filled with clean soil under the direction of TDEC. The state of Tennessee (Superfund Division) has placed the site on its inactive master list and classified it as requiring no further action.

No further action is required at this site.

STATUS

RRSE RATING: NE

CONTAMINANTS:

Solvents

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC - 1990

FCPB-15 SWMU 32
GOLF COURSE PESTICIDE MIXING AREA - TN

SITE DESCRIPTION

This SWMU consists of two areas in the fenced Golf Course Maintenance Area. One area is an unpaved driveway where excess pesticide and pesticide container rinsate were poured onto the soil for disposal. The second area is a concrete pad with a sump and a direct discharge line that drains into the soil just south of the pad. The drainage line from the pad's sump is equipped with a valve that can be turned to either (1) direct the water into a drum for collection when pesticide/herbicide mixing occurs or (2) release water directly to the soil when golf carts and lawn mowers are washed. A ditch drains away from the pad toward a nearby gully. These areas were used for pesticide handling activities from 1970 to 1991.

This is an active site and is not eligible for ER, A funding.

No further action is required.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Pesticides

MEDIA OF CONCERN

Soil, Groundwater

COMPLETED IRP PHASE:

PA/S, RI

CURRENT IRP PHASE:

RC - 1997

FCPB-16 SWMU 19
PCB STORAGE AREA - TN

SITE DESCRIPTION

This abandoned site is located in Tennessee near the corner of 16th Street and Ohio Avenue, in the east-central portion of the cantonment area. This area was used as a transformer storage area from prior to 1960 until 1984 and consisted of an outdoor, gravel-paved area. From 1984-1989, a warehouse, building 893 with a concrete floor, was used to store PCB-containing transformers.

The gravel area was paved with asphalt as an IRA in 1994 and is located between building 893 and T-846. The storage area in building 893 is surrounded by a four inch high steel berm that is bolted to the concrete floor, FCPB-16 is mostly flat and mostly covered with buildings or parking areas.

No further action is required at this site.

STATUS

RRSE RATING: Low

CONTAMINANTS:

PCBs

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC - 1995

FCPB-17 SWMU 20
FORMER DS2 STORAGE AREA - TN

SITE DESCRIPTION

The decontaminating agent (DS-2) storage area is located off 18th Street, directly southeast of SWMU-2 and east of SWMU-21, in Tennessee. It consists of a 100 x 100 ft fenced, gravel-paved site in the nuclear, biological, and chemical training area and is bordered by a wooded field directly northeast. Currently the area is used for storage of polyethylene glycol for training exercises.

No further action is required.

STATUS

RRSE RATING: Medium
CONTAMINANTS:
Metals
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1997

FCPB-18 SWMU 37A-AP
SATELLITE ACCUMULATION AREAS - TN

SITE DESCRIPTION

These 42 sites were in operation since the 1940s. Some of these units are indoors on concrete floors and some are outdoors on concrete, asphalt, or bare ground. They are, typically, in structures constructed of railroad ties and sand to contain any potential spill. Because of the numerous motor pool maintenance facilities at Fort Campbell, the accumulation areas are scattered around the facility. It has been determined that, in the past, spills have occurred at these sites.

No further action is required.

STATUS

RRSE RATING: Low
CONTAMINANTS:
Solvents, POL
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1998

FCPB-19 SWMU 41
TEMPORARY OASIS RAPID REFUELING AREA - KY

SITE DESCRIPTION

The abandoned refueling area, which operated from the early 1980s until May 1991, is located in KY in the southern part of CAAF near Black Sheep Run Road. SWMUs 12 and 15 are located across the road to the southeast of the site. This 5 acre site consisted of a largely grassy area with concrete pads of 20 x 40 ft and a system of flexible, above ground hosing, portable pumps, and fuel bladders. Over the years, chronic leaks occurred from flexible hoses used in the rapid refueling operation which released JP-4, a mixture of jet fuel and gasoline, to the soil.

This site is being investigated under the CAAF RI to determine if it is contributing to known groundwater contamination. Soil characterization is complete, and awaiting regulatory comments. Groundwater characterization is ongoing. This site was included in the CAAF SWMUG RI/FS that began in Fiscal Year 1998. During FY00, 1 groundwater monitoring well was installed. In FY02, 2 additional groundwater monitoring wells were installed. Benzene was detected in one well above the action level.

In late FY03, seismic test was completed at this site.

Any further action will be funded under FCPB-38.

STATUS

RRSE RATING: High

CONTAMINANTS:

Metals, POL

MEDIA OF CONCERN

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC - 1999

FCPB-20 SWMU 50
SHOOTING RANGE 31 - KY

SITE DESCRIPTION

The waste disposal site is located adjacent to Range 31 in the western part of Fort Campbell. The site consists of an approximately 150 x 100ft swampy area that contained 300 to 400 fifty-five gallon metal drums when it was discovered by the facility environmental group in 1989. The drums were all on the ground surface; no buried drums were found. Many of the drums were empty or shot full of holes. Some drums contained fog oil (light oil used for smoke generators), gasoline or solvents. All drums have been removed.

The Final RFI and a TIER 3 Eco Risk Assessment were approved in early 2002. Pesticides (DDD, DDE) in the soil cause an ecological risk. Five wells were abandoned in FY02.

No future action is needed.

STATUS

RRSE RATING: High

CONTAMINANTS:

Metals, Pesticides, VOCs

MEDIA OF CONCERN:

Sediment, Surface Water

COMPLETED IRP PHASE:

PA/SI, RI/FS

CURRENT IRP PHASE:

RC - 2003

FCPB-21 SWMU 42
SATELLITE WASTE OIL BUFFALO (TANKS) - TN/KY

SITE DESCRIPTION

The 20, formerly used, waste oil buffalo tanks (500 gallon trailer mounted tanks) were located outdoors within structures constructed of railroad ties and sand. It has been determined that past spills have occurred at these sites. Eight sites were determined to require no further action and remedial investigations were conducted at 12 sites. Investigation results, of these 12 sites, indicated that they contain soil contamination above action levels, however, these levels pose no threat to human health or the environment.

No further action is required at this site.

STATUS

RRSE RATING: Medium
CONTAMINANTS:
POL, Solvents
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1997

FCPB-23 SWMU 24 & 25
BATTERY MAINTENANCE FACILITIES DIO AREA - TN

SITE DESCRIPTION

The decontaminating agent (DS-2) storage area is located off 18th Street, directly southeast of SWMU-2 and east of SWMU-21, in Tennessee. It consists of a 100 x 100 ft fenced, gravel-paved site in the nuclear, biological, and chemical training area and is bordered by a wooded field directly northeast. Currently the area is used for storage of polyethylene glycol for training exercises.

No further action is required.

STATUS

RRSE RATING: High
CONTAMINANTS:
Metals, Acid
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1997

FCPB-31 SWMU 6
CONSTRUCTION DEBRIS LANDFILL #6 - KY

SITE DESCRIPTION

This abandoned construction debris landfill operated prior to 1956 and is located north of the Kentucky state line and west of Colorado Avenue. The site is adjacent to a baseball field. This 15-20 acre landfill is bounded on the north and west by an intermittent stream.

No further action is required.

Long-term monitoring will be conducted under FCPB-26.

STATUS

RRSE RATING: High
CONTAMINANTS:
Metals, VOCs
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1997

FCPB-32 SWMU 7
CONSTRUCTION DEBRIS LANDFILL #7 - TN

SITE DESCRIPTION

This landfill operated from 1953-54 and is located north of Stillwell Road between Eighth and Eleventh Streets and west of building 6801, the former installation stockade. It was a trench-and-fill operation that encompassed an ~15-20 acre area with the actual landfill boundaries being unknown. The type of waste is suspected to be municipal waste and construction debris. There is a 30 inch sewer line that runs underneath this landfill.

No further action is required.

Long-term monitoring will be conducted under FCPB-26.

STATUS

RRSE RATING: HIgh
CONTAMINANTS:
VOCs, SVOCs, POL, Metals
MEDIA OF CONCERN:
Groundwater
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1998

FCPB-33 SWMU 8
SANITARY LANDFILL #8 - TN

SITE DESCRIPTION

This landfill operated within the Old Clarksville Base from 1949-1967. The site only received installation municipal waste. The site is covered with thick grasses and mature trees. The landfill slopes west to east with a high of 460 ft above mean sea level (msl) in the northwest corner and a low of 428 ft msl in the southeast corner of the site. The eastern part of the site is bound by an intermittent stream that flows south during periods of high precipitation. Surface drainage from the site flows into this stream which originates from two smaller tributaries running from 11th Street and Kansas Avenue, and 13th Street and Colorado Avenue. From SWMU 7, the stream flows in a southwesterly direction past SWMU 33, 148, 47, 48 and 8 before discharging into Little West Fork Creek about 500 feet to the south. Contamination at SWMU 8 may originate at SWMU 148 (FCPB-51).

No further action is required.

Long-term monitoring will be conducted under FCPB-26.

STATUS

RRSE RATING: High
CONTAMINANTS:
Metals, VOCs, SVOCs, POL
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1997

FCPB-34 SWMU 9
CONSTRUCTION DEBRIS LANDFILL #9 - TN

SITE DESCRIPTION

This abandoned 5 acre landfill, located at the southwest corner of Mabry and McNair Roads, is approximately 2,000 ft east of Boiling Springs pumping station which is Fort Campbell's main drinking water supply. It was operated as a construction debris landfill from 1975 to 1991. Solvent cans and sanitary wastes were disposed of, as well as concrete, steel, demolition and construction debris. The landfill is bordered by mature trees and brush on the south and west sides and is lightly covered with grasses across the landfill area. The landfill is located less than 500 ft upgradient of Little West Fork Creek.

No further action is required.

Long-term monitoring will be conducted under FCPB-26.

STATUS

RRSE RATING: High
CONTAMINANTS:
VOCs, SVOCs, POL, PCBs
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1998

FCPB-35 & 36 SWMU 12 & 15 OLD FIRE TRAINING AREA & FIRE TRAINING AREA - KY

SITE DESCRIPTION

These abandoned sites, FCPB-35 & 36, are combined because of a physical overlap of the two identifiable areas and will be addressed together as FCPB-35. FCPB-35 (SWMU-12) was formerly identified as the Old Fire Training Area and FCPB-36 (SWMU-15) as the Fire Training Area. FCPB-35 is located west of the access road between the Fire Training Area (FCPB-36) and the main road. FCPB-36 consisted of a circular area paved with gravel which was removed under an IRA in 1996. FCPB-35/36 are on a flat, relatively, smooth upland with a very gentle slope to the south towards a small tributary valley of Little West Fork Creek. A vehicle burial ground was located to the eastern edge of this area which is believed to be attributed to previous activities. These vehicles were removed in Nov 1998.

This site is part of the SWMUG associated with CAAF. As such, it will require investigation in conjunction with FCPB-38 to fill a CAAF groundwater data gap. All actions funded under FCPB-38.

STATUS

RRSE RATING: High
CONTAMINANTS:
VOCs, Metals, SVOCs
MEDIA OF CONCERN:
Groundwater
COMPLETED IRP PHASE:
PA/SI, IRA, RI/FS, RA, LTM
CURRENT IRP PHASE:
RC - 1997 & 2002

A new well was installed in Nov 2002, 5 wells were sampled in Dec 2002, detecting TCE at ~60ppb. HRC was injected in one area. In Feb 2003, additional groundwater samples were collected, no significant reduction was detected. In Dec 2002, ~15 cy of soil was removed for lead contamination.

FCPB-37 SWMU 11 SANITARY LANDFILL #11 - TN

SITE DESCRIPTION

This abandoned, 10 acre, trench-and-fill, municipal landfill, located at the northwest corner of Old Construction Road and California Road in the Old Clarksville Base, operated from 1949-1967. The landfill is currently covered with mature cedar trees and thick grasses. The land is, relatively flat ranging from 500 to 522 ft above mean sea level over a linear distance of 300 ft in all directions. The surface slopes to the north from this area with surface water runoff to a small intermittent stream which flows in a northerly direction to Little West Fort Creek.

No further action is required.

Long-term monitoring will be conducted under FCPB-26.

STATUS

RRSE RATING: High
CONTAMINANTS:
Metals, VOCs
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 1997

FCPB-39 AOC C
DIESEL SPILL - KY

SITE DESCRIPTION

This approximate 300 gallon diesel spill occurred at CAAF on or about February 13, 1987. In FY98, a DPT sample was taken, results found no contamination.

This site is part of the Solid Waste Management Unit Group (SWMUG) associated with CAAF. Any contamination at this site that may be contributing to groundwater contamination will be addressed and funded as part of the CAAF SWMUG groundwater remediation plan (FCPB-38).

No further action is required.

STATUS

RRSE RATING: High
CONTAMINANTS:
POL
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI
CURRENT IRP PHASE:
RC - 1998

FCPB-40 SWMU 134 - 137
801ST MOTOR POOL GRAVEL PITS (4 SITES) - TN

SITE DESCRIPTION

This site is located between Wickham and Tennessee Avenue and 15th Street dividing the motor pool in half. The site is approximately 26.5 acres in size and consists of vehicle maintenance buildings and parking areas. There are no defined drainage pathways and no springs or seeps near the site. Previous studies at this site identified soil contamination at the abandoned gravel pits associated with each of the four oil houses. As part of a MCA project, contaminated soil was excavated to a depth of 30 ft and removed from the site and the pits were back filled with clean soil.

No further action is required.

STATUS

RRSE RATING: Medium
CONTAMINANTS:
VOCs, SVOCs, Metals
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, RI/FS
CURRENT IRP PHASE:
RC - 2000

FCPB-42 SWMU 139
CLARKSVILLE BASE WASTE BURIAL AREA - TN

SITE DESCRIPTION

The site is located within the Old Clarksville Base. Interviews with past employees have determined that carcasses of animals used for radiological study may have been buried at this site. FCPB-42 was remediated by USATHMA in the 1980s. A complete report is on file.

No further action is required at this site.

STATUS

RRSE RATING: Low
CONTAMINANTS: Low-level radiation (none detected above action levels)
MEDIA OF CONCERN
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI
CURRENT IRP PHASE:
RC - 1997

FCPB-44 SWMU 141
CONSTRUCTION DEBRIS LANDFILL - KY

SITE DESCRIPTION

This abandoned landfill, of approximately eight acres, is located on the tank trail near the north washrack and within the Small Arms Impact Area. Past practices at this site included the disposal of various construction debris and residential waste. Surface and sub-surface UXO were discovered in and around the landfill which severely hampered the RFA effort. The southwest face of the landfill has exposed refuse consisting of concrete debris and scrap metal.

No further remedial action is required at this site. Long-term monitoring will be done in conjunction with FCPB-26.

STATUS

RRSE RATING: Medium
CONTAMINANTS:
Metals
MEDIA OF CONCERN:
Soil, Surface Water, Groundwater
COMPLETED IRP PHASE:
PA/SI, LTM
CURRENT IRP PHASE:
RC - 1997

FCPB-45 SWMU 142
SOIL INCINERATION AREA - TN

SITE DESCRIPTION

This site is a former soil incineration area located west of the main cantonment area off Mabry Road and South of the Small Arms Impact Area. It was used for remediation of petroleum-contaminated soil excavated during UST removal projects and was in operation from 1988 to January 1996. Since that time, the equipment has been removed and the site has been regraded and revegetated.

No further action is required at this site.

STATUS

RRSE RATING: High
CONTAMINANTS:
POL, Hydrogen Peroxide
MEDIA OF CONCERN:
Soil, Surface Water, Groundwater
COMPLETED IRP PHASE:
PA/SI
CURRENT IRP PHASE:
RC - 1997

FCPB-47 SWMU 144
POST LAUNDRY BUILDING 860 - TN

SITE DESCRIPTION

This site is located adjacent to the current post laundry. Evidence shows a previously removed storage tank of petroleum based solvents leaked into the soil. Investigation of potential leaking solvents was reviewed and an interim remedial action was performed. The IRA consisted of soil, tank and associated piping removal. Some contamination remained in the deep sub-surface soil and posed a potential threat to groundwater.

Groundwater sampling since FY99 has detected no contamination above MCLs. All site wells were plugged and abandoned in FY03. A request for closure was submitted in FY03 and approved.

STATUS

RRSE RATING: High
CONTAMINANTS:
VOCs
MEDIA OF CONCERN:
Groundwater
COMPLETED IRP PHASE:
IRA, RI/FS
CURRENT IRP PHASE:
RC

FCPB-48 SWMU 145
OLD SKEET RANGE - TN

SITE DESCRIPTION

This 3-acre site is no longer in operation as a skeet range. The site is adjacent to a community recreational area. The site is bounded on the north side by Fletcher's Fork Creek and on the south by a MWR community area.

Results of the PA/SI revealed levels of PAHs that pose a potential risk to human health and the environment. A field investigation to delineate extent of contamination was conducted, and the area was fenced in FY98. An ecological risk assessment was completed in FY01 and indicated that soil removal was needed. Contaminated soil removal and clean backfill was completed in FY01.

No further action is required.

STATUS

RRSE RATING: Medium
CONTAMINANTS:
PAHs
MEDIA OF CONCERN: Groundwater, Soil, Sediment, Surface Water
COMPLETED IRP PHASE:
PA/SI, 2 IRAs, RI/FS
CURRENT IRP PHASE:
RC - 2001

FCPB-51 SWMU 148
CLARKSVILLE BASE FIRE TRAINING AREA - TN

SITE DESCRIPTION

This site is an abandoned fire training area located within the Old Clarksville Base. SWMU 148 was used for the training of fire fighting personnel where POLs were ignited on the ground and extinguished. This site is potentially the source of contamination at FCPB-33 (SWMU 8). Based on the results of the PA/SI there is confirmed surface soil contamination exceeding TDEC clean up levels.

In FY98, 6 surface soil samples were taken and the existing monitoring well was sampled. Results indicated 2 of the 6 soil samples contained low levels of TPH (DRO). Additional samples were taken in FY00. No further action was required for soils (FY01). Groundwater samples taken in Oct 2001, did not detect any contaminants of concern above action levels. The site well was abandoned in FY03.

STATUS

RRSE RATING: Medium
CONTAMINANTS:
VOCs, SVOCs
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, RI/FS
CURRENT IRP PHASE:
RC - 2003

FCPB-53 SWMU 150
UST SOIL CLEAN UP - TN

SITE DESCRIPTION

This site consists of three former UST locations (Pump Houses 5185, 5146 in KY, and 5546 in TN) where the USTs were removed in 1993 and contaminated soil and abandoned piping still exist. POL contamination above action levels was confirmed at depths of 25 ft. In FY01, investigation showed that residual contamination were below action levels.

No further action is required.

STATUS

RRSE RATING: Medium
CONTAMINANTS:
Metals, VOCs, SVOCs
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 2001

FCPB-54 SWMU 151A-D
UST CONTAMINATED SOIL CLEANUP - TN/KY

SITE DESCRIPTION

These seven sites, which include 23 abandoned underground storage tanks, are located at Buildings 856, 5395, 5451, 5972 and 3 locations in Werner Park. All of the USTs were removed under the Army's UST program. Soil contamination above UST clean up levels remains at the 3 Werner Park sites.

No further action is required.

STATUS

RRSE RATING: NE
CONTAMINANTS:
POL
MEDIA OF CONCERN
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI
CURRENT IRP PHASE:
RC - 1995

FCPB-55 AOC E
NUCLEAR STORAGE FACILITY (ABANDONED) - TN

SITE DESCRIPTION

FCPB 55 is located within the Old Clarksville Base and consists of ten (10) buildings which were recommended by USACHPPM to be investigated per NRC regulation/CR-5849 prior to clearance being given for unrestricted use. The facility handled nuclear weapons from 1949 to 1966. A radiation survey conducted during FY99 indicates further investigation is required. In FY00, PNNL conducted a review of the radiation survey and determined that radiation was not a concern at this site.

STATUS

RRSE RATING: Low
CONTAMINANTS: Radiation (Radium, Plutonium and Beryllium)
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI
CURRENT IRP PHASE:
RC - 1997

FCPB-57 SWMU 152
DEMOLITION LANDFILL (JOE SWING POOL) - TN

SITE DESCRIPTION

This site consists of ~15 acres immediately west of Joe Swing Pool (quarry). The quarry was abandoned around 1945 and the area was used as a construction debris landfill to help control erosion and fill in the area. No official records can be located as to the exact period of operation or of the control of deposits. The site is situated on the south border of Cole Park Golf Course and appears on the Fort Campbell topographic map as an abandoned quarry. The site is located approximately 100 meters north of Little West Fork Creek and 50 meters west of the Barsanti House.

In FY97, the landfill was investigated using EM Technologies. Twenty DPT samples were collected in FY98; results indicate pesticides and PAHs below action levels.

No further action is required.

STATUS

RRSE RATING: Medium
CONTAMINANTS: Metals, VOCs, SVOCs, Pesticides, PCBs
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE:
RC - 2002

FCPB-59 AOC G
OUTFALL C (FUEL PITS) CAAF - KY

SITE DESCRIPTION

This site consists of two acres of soil surrounding the underground collection vault on the southeast side of the runways at Campbell Army Airfield. The site extends southeastward past the runway protective fence to an outfall approximately 50 meters southeast of the runway protective fence and extends underneath the access road to a sink hole (Outfall C) approximately 50 yards east of the access road. The approximate location of the underground vault is UTM grid coordinates DR574593. This site is part of the Solid Waste Management Unit Group (SWMUG) associated with CAAF. Any contamination at this site that may be contributing to groundwater contamination will be addressed as part of the CAAF SWMUG groundwater remediation plan.

In FY98, samples were taken and indicate soils around the collection vault as well as surface water-sediment at Outfall C were contaminated.

In FY00, the ditch was lined to immobilize the sediment.

The site is RC aside from GW that is being addressed as part of the CAAF SWMUG.

STATUS

RRSE RATING: High

CONTAMINANTS:

Petroleum

MEDIA OF CONCERN:

Soil, Groundwater, Sediment

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

RC - 1998

FCPB-60 AOC H
OUTFALL H (TANK FARM) CAAF - KY

SITE DESCRIPTION

Outfall H is an ~54 inch diameter pipe that receives surface water from several areas on CAAF including washracks, a fuel tank farm, a temporary oasis rapid refueling area (SWMU 41), and hangars. The outfall discharges into a stormwater drainage ditch which runs, generally, westward near Perimeter Road of Campbell Army Airfield. The ravine continues westward underneath Perimeter Road to a point where it empties into Little West Fork Creek. There is analytical evidence of VOCs, SVOCs, pesticides and metal contamination in sediments throughout the length of the ditch. The inputs causing the contamination in the ditch have been addressed by installing an oil water separator and more effective fuel handling procedures.

In FY98, 5 surface water-sediment samples were analyzed and confirmed the presence of contamination. In FY00, the ditch was lined to immobilize the sediment.

This site is RC, aside from the groundwater that is being addressed as part of the CAAF SWMUG.

STATUS

RRSE RATING: High

CONTAMINANTS:

VOCs, SVOCs, Pesticides, Metals

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

RC - 1998

FCPB-62 SWMU 154
CAAF ACID PITS - KY

SITE DESCRIPTION

This site consists of the soil surrounding and underneath the five acid pits along Hangars 5 through 9 at Campbell Army Airfield. Each hangar has its own pit generally located at the northwest corner of the building. Each pit has upright barriers at each corner and has a metal cover. For an unknown number of years, these pits were utilized to collect runoff from inside the hangar maintenance areas. In FY98, 1 DPT sample was taken in each pit, results found metals. In FY01, DPT samples detected metals in one of the pits. The surface soil was removed in summer 2002.

This site is part of the Solid Waste Management Unit Group (SWMUG) associated with CAAF. Any contamination at this site that may be contributing to groundwater contamination will be addressed and funded as part of the CAAF SWMUG groundwater remediation plan (FCPB-38).

In FY03, one of the acid pits was removed, the others did not need to be removed. No further action is needed.

STATUS

RRSE RATING: High

CONTAMINANTS:

Metal, Sulfites

MEDIA OF CONCERN

Soil

COMPLETED IRP PHASE:

PA/SI, RI/FS

CURRENT IRP PHASE:

RC - 2003

FCPB-63 SWMU 160
ABANDONED WWTF OLD CLARKSVILLE BASE - TN

SITE DESCRIPTION

This abandoned WWTP was utilized from approximately 1945 to 1965. It was located in the northwest corner of Old Clarksville Base, upgradient from Little West Fork Creek.

In FY99, the trickling filters and sludge drying beds were removed. Samples taken indicated no contamination. All that remains of the site is the empty sludge drying beds.

No further action is required.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

Metals, SVOCs, VOCs

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, RI/FS

CURRENT IRP PHASE:

RC - 1999

ADDITIONAL RESPONSE COMPLETE SITES

AEDB-R #	SITE NAME	RC REASON
FCPB-02	Woodlawn Landfill (SWMU 13)	OMA - Not Eligible for IRP Funds
FCPB-05	Battery Maintenance Facility (BLDG 6530) (SWMU 22)	OMA - Not Eligible for IRP Funds
FCPB-08	Abandoned Waste Oil Tank (SWMU 36)	OMA - Not Eligible for IRP Funds
FCPB-14	DPW Pesticide Mixing Area (SWMU 35)	OMA - Not Eligible for IRP Funds
FCPB-22	Wastewater Drying Beds (SWMU 47)	OMA - Not Eligible for IRP Funds
FCPB-25	OB/OD Area (SWMU 27)	OMA - Not Eligible for IRP Funds
FCPB-27	Sanitary Landfill #2 (SWMU 2)	Funded under FCPB-26
FCPB-28	Sanitary Landfill #3 (Market Garden Rd/ 25th St) (SWMU 3)	Funded under FCPB-26
FCPB-29	Sanitary Landfill #4 (25th St/ Market Garden Rd) (SWMU 4)	Funded under FCPB-26
FCPB-30	Sanitary Landfill #5 (State Line/ Market Garden Rd) (SWMU 5)	Funded under FCPB-26
FCPB-41	PX Service Station (SWMU 138)	OMA - Not Eligible for IRP Funds
FCPB-46	DPW Paint Shed (SWMU 143	OMA - Not Eligible for IRP Funds
FCPB-50	Sabre Drum Storage Area (Bldg 6636) (SWMU 147)	OMA - Not Eligible for IRP Funds
FCPB-56	Remove & Investigate HW Oil Tanks (SWMUs 95-99)	OMA - Not Eligible for IRP Funds
FCPB-61	DRMO Scrap & Salvage Area (SWMU 49)	OMA - Not Eligible for IRP Funds

Summary

STATUS: Non-NPL Installation

TOTAL # OF OMA SITES: 215 Sites
ACTIVE OMA SITES: 26 Sites
RESPONSE COMPLETE (RC) SITES: 189 Sites

DIFFERENT SITE TYPES:

17 Landfills	4 Spill Site Areas
2 Contaminated Buildings	1 UST Pit
3 Contaminated Groundwater	1 Bulk Storage Area
4 Accumulation Points	8 Acid Pits
6 Contaminated Soil	98 Oil/Water Separators
43 Waste Oil Tanks	1 Open Burning/Open Detonation Area
1 Waste Burial Area	2 Above Ground Storage Tanks
1 Waste Treatment Plant	40 Lubrication/Inspection Racks
300-500 Fuel Oil Tanks	1 Drum Storage Area

CONTAMINANTS OF CONCERN:

POL, Metals, Solvents, PCBs, Explosive Constituents, Pesticides, Lead

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED REM/IRA/RA:

Maintenance Cover (SWMU's1-6, 7, 8, 9, 11, 14, 15, 17, 161, 162, AOC P)
Golf Maintenance Area - SWMU 32
UST Removal and Closure - SWMU's 95-99 (FY98)
Collection Vault System - SWMU's 157 (FY98)
Fuel Filter House - SWMU 164
Waste Oil Pit at DRMO - SWMU 167
A/C Fuel Pumping Stations - AOC A
Sinkhole at 30th & Colorado - AOC K
Fuel Oil Release - AOC O
For a complete list see Remediation Activities

CURRENT IRP PHASES:

COMP at 2 site	RA at 0 site
RI/FS at 2 sites	LTM at 5 sites
IRA at 1 sites	

PROJECTED IRP PHASES:

RI/FS at 3 sites	RA at 1 sites
IRA at 4 site	LTM at 6 sites

IDENTIFIED POSSIBLE REM/IRA/RA:

IRA at 5 sites - SWMU 138, AOC L, AOC N, AOC O and AOC Q
RD/RA at 1 sites - AOC L

DURATION: YEAR OF IRP INCEPTION: 1991

Fort Campbell

OM,A ACTIVE SITES

PROJECT 4-40-97X
ABANDONED DUMP CLOSURE & COMPLIANCE - KY/TN
SWMU # 1,2,3,4,5,6,7,8,9,11,14,141,152,161,162 & AOC P

SITE DESCRIPTION

These sites are abandoned dumps (except for LF #5), used for the disposal of construction and/or sanitary debris and were active prior to 1986. These sites cover about 300 acres; six sites are clustered along Market Garden Road (formerly Range Road) near 18th Street and 25th Street intersections. Others are located in, or near, Clarksville Base and Angels Road. Two hundred and twelve acres require annual compliance activities. Prior to FY05, ER,A funds were used for long term monitoring of these sites. Beginning in FY05, OMA funds will be used for the closure and compliance of these sites including LTM.

PROPOSED PLAN

Closure and compliance of all sites by providing positive storm water drainage; removing all ponding areas; fertilizing, and seeding. Mow and re-establish cover and repair each area as required to include access control. Continue LTM. Areas will be returned to the installation for use in accordance with regulatory guidance.

STATUS

CONTAMINANTS:

VOCs, SVOCs, Metals

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

Continued Compliance, LTM

FUTURE IRP PHASE:

Continued Compliance

PROJECT 13-41-01X
OPEN BURNING/OPEN DETONATION AREA - TN
SWMU #27

SITE DESCRIPTION

Previously an Interim Status Unit, SWMU 27 is a 44.87 acre area, which is now part of the Corrective Action Program (FY05). The site lies off Jordan Springs Road in the central part of Fort Campbell, west of the cantonment area. The area was used for demolition training and the destruction of waste ammunition. The site is pockmarked with craters and chunks of soil caused by training and treatment of waste munitions. The unit was operational from1943 to 1997.

In FY02, an RI was conducted. Sixteen wells were redeveloped and sampled. Forty-six surface soil samples were taken. NFA for soils and continued monitoring of MW 11 was recommended . The RI report was approved by the State of TN.

Using FY03 funds, the following action will be taken: conduct clearance and removal of UXO, removal of the fence, removal and disposal of all surface debris and structures, leveling of depressions and establishment of adequate soil and vegetative cover over the site, and installation of two monitoring wells down-gradient of MW11 to determine the extent of RDX contamination in the groundwater. The work is currently ongoing and expected to be completed in the June 2004 timeframe.

STATUS

CONTAMINANTS:

Explosive Constituents

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI, RA

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

LTM

PROPOSED PLAN

Continue monitoring. Starting FY06, LTM will be funded under the Monitoring Well Sampling project, #13-37-99X. Outyears P & A 8 wells.

PROJECT 13-32-98X
GOLF COURSE PESTICIDE MIXING AREA - TN
SWMU #32

SITE DESCRIPTION

This site consists of a fenced area which encloses the golf course maintenance activities. Pesticides were improperly mixed at the site resulting in releases to soil and groundwater. The State of Tennessee requires further groundwater analysis at this site (Nov 2003).

In FY01, an additional monitoring well was installed to provide further characterization of the site. Three surface soil samples were taken. Results indicated further investigation is required (pesticides).

In FY02, approximately 100 CY of contaminated soil was removed. Residual soils contamination was below action levels.

In FY03, four groundwater monitoring wells were sampled for a full suite of Pesticides. Based on results, NFA and P & A of all four wells was recommended. The pesticide contamination detected in the one of down-gradient wells is attributed to activities at the Golf Course.

STATUS

CONTAMINANTS:

Pesticides

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS (Phase I, II,III), IRA

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

RC

PROPOSED PLAN

A Letter will be submitted to TN requesting NFA at the site. P&A all four wells.

Write a statement of basis justifying NFA.

PROJECT 8-58-96X
PX SERVICE STATION - KY
SWMU #138

SITE DESCRIPTION

This is an active automotive service maintenance car care center for military personnel and their dependents. The facility has been in operation at this site for more than thirty years. Confirmatory sampling in 1996 indicated gross soil contamination with a possible threat to human health. This site lies within the Millstone Spring Groundwater Basin which discharges in Tennessee. Multiple sources exist at this site, including former; UST sites, floor drains, and an oil water separator (east of the building). A Phase I and II RFI were conducted in FY99. Additional contamination was found at the site. The OWS was removed at that time.

In FY00, a Phase III investigation completed delineation of the soil contamination. Groundwater was found to be impacted with benzene and lead both at low levels. A corrective measures study was conducted in FY02. The recommendation of the CMS was administrative controls, LTM, and in-situ treatment of soil under the concrete base. As a result, a SVE system was installed in FY02. Although CS results showed no contamination above action levels, there is no explanation for the apparent absence of contamination.

The Commonwealth of Kentucky has requested additional investigation.

STATUS

CONTAMINANTS:

VOCs, SVOCs, Metals

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS (Phase I, II, III), CMS

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

RI/FS, IRA, LTM

PROPOSED PLAN

At this time, no futher action is anticipated for soils. Further groundwater characterization and installation of additional wells may be required. Continue LTM. Starting FY06, LTM will be funded under the Monitoring

Well Sampling project, #13-37-99X. P& A 3 degraded wells (MW002D, MW004, and MW005).

The Fort Campbell Master Plan for FY07 includes the replacement of the service station. An IRA may be required to address any soil contamination located beneath the buildings once its removed.

PROJECT 13-42-04X
LUBE RACK INVESTIGATIONS/REMEDIATIONS-KY/TN
SWMU 170

SITE DESCRIPTION

SWMU 170 consists of 81 lubrication/inspection racks; 33 racks with reinforced concrete, 43 racks identified by historical maps with no structure, and 5 racks with canopies. They were constructed during World War II for the primary purpose of facilitating the inspection of motorized vehicles. They were also used to facilitate motor oil changes and based on the demolition and inspection of some of the lube racks, large amounts of oil were discharged to the soil beneath the racks.

In FY00, an installation wide inventory of vehicle racks including visual inspection and records search was conducted. Three racks were investigated with passive soil gas survey and qualified for ER,A eligibility.

Of the 81 lube racks, 23 are active sites, therefore will continue to be addressed by OM,A. The remaining 58 are eligible for ER,A funds and will be addressed under the ER,A program.

In FY04, project 13-24-98X was retired and replaced by project 13-42-04X.

STATUS

CONTAMINANTS:

VOCs, SVOCs, PCBs, Metals

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

None

FUTURE IRP PHASE:

RI/FS, IRA, RA, LTM

PROPOSED PLAN

Conduct IRA at twenty-three sites. Assume a RFI to delineate residual contamination at six of the 23 sites. Perform RA at six sites where residual contamination is found. Followed by LTM. Starting FY09, LTM will be funded under the Monitoring Well Sampling project, #13-37-99X. P& A wells.

PROJECT 13-25-98X
BULK FUEL STORAGE (ASTS)
AOC D

SITE DESCRIPTION

AOC D was the main tank farm for bulk storage of aviation fuel (JP-8) and waste oil at Campbell Army Airfield (CAAF). Three ASTs and associated piping were removed in 1999. To date, two tanks (430,000 gallon capacity each) which stored JP-4 prior to 1993 and JP-8 since that time remain. Prior to 1994, hydrocarbon saturated tank bottom water was discharged directly to ground lined underground sumps and storm water pipes. During that time frame, approximately 140 gallons per week of tank bottom water was being discharged to the unlined sumps and the soil. A 1994 analysis of tank bottom water indicated elevated levels of TPH, Benzene, and Toluene. OMA responsibility is restricted to inside the berm and former berm areas.

In FY02, three bedrock wells were installed. Preliminary results indicate groundwater contamination above action levels. MTBE was also detected. Groundwater is being addressed by the ER,A Program.

STATUS

CONTAMINANTS:

VOCs, SVOCs, Metals, Herbicides

MEDIA OF CONCERN:

Groundwater (ER,A)

COMPLETED IRP PHASE:

PA/SI, IRA

CURRENT IRP PHASE:

RC

FUTURE IRP PHASE:

Continued Compliance

PROPOSED PLAN

Perform annual Tracer testing of the ASTs with DESC funds if available.

PROJECT 13-43-04X
HOUSING FUEL TANK CONTAMINATION - TN AOC N

SITE DESCRIPTION

This project consists of unregistered fuel oil tanks. The fuel oil tanks range in size from 250 gallons up to 20,000 gallons. The smaller tanks are typically located in housing areas. Use of residental tanks was discontinued in approximately 1963. The larger tanks are generally used for emergency heating backup at various locations around the installation. Unregistered fuel oil tanks will be handled on an individual basis as discovered.

Three of the previously removed fuel oil tank sites (located in Werner Park) were investigated in FY00 under project number 5-13-91X. No further action was recommended for the three sites, SWMU 151D (bldg. 1479), 151E (bldg. 1484), and 151F (bldg 1489).

As per discussion at the FY04 IAP, removal of the heating oil tanks (unregistered) will be addressed under the UST program. To date, 198 of 199 USTs have been removed. The remaining tank (Bldg 5001) will be removed this summer 2004.

To date, 9 USTs in Tennessee and 84 in Kentucky will require further investigation. In FY04, at Bldgs 3008 and 3009, residual soil contamination will be removed from 5 previously removed tank sites using housing funds.

STATUS

CONTAMINANTS:

Fuel Oil

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA,SI under 5-13-91X

CURRENT IRP PHASE:

None

FUTURE IRP PHASE:

IRA

PROPOSED PLAN

Residual contamination at Cole Park and Gardner Hills, the 9 sites in TN, is scheduled for removal in FY06. The 79 remaining sites located at Hammond Heights and CAAF residences (Hedge Row Court) will be addressed in FY08.

PROJECT 13-31-98X
FUEL OIL RELEASE - KY
AOC O

SITE DESCRIPTION

A release occurred over a period of years at the Central Energy Facility (CEF) located on Indiana Avenue near 47th Street. Leaks associated with the above ground fuel filters leading to the CEF from the main reserve tank caused a release of No. 2 fuel oil. The results of the PA/SI indicated that soils in the immediate vicinity of the fuel filters were impacted to a depth of 7-9 feet.

In FY99, a RFI Phase I and IRA were conducted concurrently. Confirmatory samples taken after the removal action indicated that no further action was necessary under the current land use. However, in FY01 during utility line installation, stained soil was encountered.

In FY02, shallow soil samples were collected in the vicinity of the utilities excavation near the cooling tower. The soil sample results indicated contaminated surface soil remains under the pipeline. Because this is an active site, the Commonwealth of KY agrees that no current action is required to remove the contaminated soil until the fueling system is replaced or removed.

Fuel contamination encountered during the investigation of OWS 155C will be addressed under this project.

STATUS

CONTAMINANTS:

PAHs

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI, IRA

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

IRA, Continued Compliance

PROPOSED PLAN

The monitoring well installed under the OWS Project #13-15-97X will be monitored annually for PAHs. Starting FY06, LTM will be funded under the Monitoring Well Sampling project, #13-37-99X. An IRA is scheduled for FY08 subject to the replacement or removal of the fuel system. P& A wells. This site will continue to be inspected by plant personnel to ensure compliance with RCRA requirements and best management practices.

PROJECT 13-44-04X
OLD HOSPITAL SITE (OMA) - KY
AOC Q

SITE DESCRIPTION

This seventy-seven acre site was formerly occupied by WWII mobilization type hospital containing approximately 60 buildings. An environmental investigation was performed in 1993 and indicated high residual levels of pesticides in the soils. A subsequent investigation performed in 1994 indicated lower levels of pesticides. This site is now proposed for residential construction. A sampling analysis plan to characterize the site was prepared and coordinated with Commonwealth of Kentucky in Jan 2003. It included the following actions: collect 550 samples, analyze for TCL SVOCs & Pesticides & TAL metals; collect 253 samples, analyze for TCL VOCs, and possibly PCBs (KY to determine). The investigation will be conducted using special funding received from the ACSIM beginning September 2003.

In FY04, under project #5-13-91X, SWMUs investigations, additional soils characterization will be performed to address data gaps at approximately 27 locations.

Project 9-25-02X was retired and replaced by project 13-44-04X (FY04).

STATUS

CONTAMINANTS:

VOCs, Pesticides, PCBs, TAL Metals, SVOCs

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

None

FUTURE IRP PHASE:

IRA

PROPOSED PLAN

Perform an IRA to excavate and dispose of approximately 80,000 - 130,000 CY contaminated soil. Collect confirmatory samples (17 samples per bldg).

There is a possibility of performing a Risk Assessment, installing a protective cover and utilizing the site as a recreational facility.

PROJECT 13-40-01X
SABRE STORM WATER LINE - TN AOC R

SITE DESCRIPTION

This site is located off the south end of the rapid refueling pads within the new Sabre Heliport expansion area. Contamination was discovered on May 6, 2001, while installing a 60 inch storm water line. The installation was stopped immediately. Soil sampling was conducted the following day, May 7th. Samples taken confirmed the presence of petroleum distillates at depth (~20ft bgs). However, since that time, additional fill has been added (approx. 10 feet). Suspected soil contamination is now located at 30 feet below present ground surface.

Using FY04 funds, an RI/FS will be performed to delineate the soil contamination (summer 2004).

PROPOSED PLAN

Perform Phase II RFI to investigate groundwater. LTM if needed will be funded under the Monitoring Well Sampling program, project #13-37-99X.

STATUS

CONTAMINANTS:

Petroleum (GRO, EPH)

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS (Phase II)

FUTURE IRP PHASE:

LTM

PROJECT 5-13-91X
SWMU INVESTIGATION (OMA) - KY/TN

SITE DESCRIPTION

Beginning in FY02, this project will be utilized for SWMU qualification and ER,A funding eligibility.

In FY02, the abandoned quarry at Joe Swing Pool (TN) was investigated.

In FY03, the buried debris in the area of the Korean barracks located along Desert Storm Avenue between 37th and 46th Street was investigated. No contamination was found above action levels. Also in FY03, a portion of funding for this project was utilized to prepare a sampling and analysis plan and locate former structures at AOC Q, the Old Hospital Complex. The Ammo Supply Point on Clarksville Base was also investigated.

In FY04, Lee Village and the Old Hospital Site were investigated. No contamination was found at Lee Village. Using FY04 funds, a CS may be performed at the Contractors Supply Yard. Further investigation will be required at the Old Hospital Site. For additional details pertaining to AOC Q, see Project 13-44-04X, the Old Hospital Site.

STATUS

CONTAMINANTS:

VOCs, SVOCs, Metals

MEDIA OF CONCERN:

Various

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RI/FS (Transfer to ER,A if required)

PROPOSED PLAN

Sites for this project will be identified by the Fort Campbell Environmental Staff during FY05.

PROJECT 13-15-97X
OIL/WATER SEPARATORS (OWS) - KY/TN

SITE DESCRIPTION

There are 98 Oil/Water Separators (OWS) on Fort Campbell. Oils, dirt and grit from washing vehicles and aircraft are the kinds of waste managed by the units. Sites are identied by Fort Campbell building numbers and are located in both Tennessee and Kentucky. In 1990, 54 OWS were identified during a RCRA Facility Assessment. Subsequently, 44 more were identified and added to the inventory.

As of the end of FY01, all OWS were inspected for integrity, thirty-one were removed from service, and twenty-four were excavated. A total of sixty-seven OWS sites require further investigation/closure. Of the ninety-eight OWS, approximately twenty-five will remain in operation.

In FY02, 18 OWS were removed. Results indicated no contamination present at fourteen of these sites, the remaining four require further investigation. An RI was conducted at eight additional sites in FY02, of which, only two appear to be contaminated (61 and 155C). The contamination discovered during the investigation of 155C will be addressed under AOC O, the Central Energy Facility.

STATUS

CONTAMINANTS:

Metals, Petroleums, Oil

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI (Phase I, II, III), RA

CURRENT IRP PHASE:

IRA

FUTURE IRP PHASE:

RC

In FY03, a CS was conducted at the twenty-one sites that failed integrity testing (5 sites) or had no closure reports (16 sites). Of the 21 investigated, one OWS located in TN, will require further investigation (5128, 155D).

In FY04, a RI/FS will be performed at seventeen OWS sites.

PROPOSED PLAN

Based on the experience to date, it is estimated that 3 OWS sites will require a removal action. A final summary report will be submtted to address the status of all OWS.

PROJECT 13-37-99X
MONITORING WELL SAMPLING (OMA) - KY/TN

SITE DESCRIPTION

This project is required to sample groundwater monitoring wells installed at OM,A funded sites. Each year, analytical data will be entered into the Installation Master Data Base and a Year-End Summary will be completed.

PROPOSED PLAN

A groundwater optimization and monitoring plan will be written in FY05. Sample monitoring wells as determined at the annual installation groundwater monitoring meeting. To date, SWMU's with wells to be sampled include; Abandoned Dumps #1-9, 14 and SWMUs 27, 32, 138 and AOC O.

STATUS

CONTAMINANTS:

To be determined

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

None

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

LTM

Fort Campbell

OM,A INACTIVE SITES

SANITARY/DEBRIS LANDFILL (WOODLAWN) - TN SWMU #13

SITE DESCRIPTION

This site now operates as a permitted construction/demolition landfill located near the intersection of Woodlawn Road and Highway 79. It consists of 65 acres and has been approved by the State of Tennessee. Fort Campbell has permitted or used about half of the total acreage.

The landfill operated from 1987 to 1994 as a sanitary landfill and received residential and commercial refuse and approximately 250 cubic yards per month of municipal sewage sludge. There were no incidents of release documented in the file materials. No evidence of any type of release was noted during the Visual Site Inspection or Metcalf & Eddy's June 1991 inspection. The landfill previously used the trench and fill method with a leachate collection system for open trenches draining to a containment basin. The trench and fill landfill had daily compaction and daily coverage of soil. The leachate collection system used at this time was not designed well and failed. There have been several leachate releases but they were repaired as found. This landfill closed before reaching capacity and a permit was obtained from the State of Tennessee to use the remaining portion as a construction/demolition landfill. To date, no contamination of the groundwater has been detected.

STATUS

CONTAMINANTS:

Unknown

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC

This construction/demolition landfill is active and permitted with a groundwater monitoring network in place. Groundwater is sampled on a quarterly basis as required by RCRA and the permit. Fort Campbell is in the process of installing a new leachate system. The Pollution Prevention Branch of the Environmental Division has an approved closure/post closure plan approved by the State and is responsible for managing this site.

NEW PCB STORAGE FACILITY - TN SWMU #18

SITE DESCRIPTION

The new PCB Storage Facility is located just west of the Directorate of Public Works Roads and Grounds maintenance compound at the intersection of 1st Street and Wickham Avenue. The facility consists of a steel building (#5121) with concrete floors and covers an area of approximately 500 square feet. The floor is sloped to a closed sump to contain any spills. The unit is used for storage of transformers until they are taken off-site for management and disposal of the PCB-contaminated oils contained within them. The building has been designed to conform with 40 CFR 761 requirements.

No further action is planned at this site. The unit was listed as NFA in the 1990 HSWA permit.

STATUS

CONTAMINANTS:

PCBs, Contaminated Oil

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC

PROJECT 9-17-96X, 5-14-91X
BATTERY MAINTENANCE FACILITY - TN
SWMU #22

SITE DESCRIPTION

This is a former used battery and dismantling area, located on 55th Street between Tennessee and Wickham Avenues in KY. This area has been operated prior to 1985 and now provides battery storage. It is a 25 by 15 foot concrete block building with a concrete floor and an outside gravel paved storage area covering about 1000 square feet. The facility managed cadmium and lead batteries and spent sulfuric acid electrolyte. Prior to 1991, unserviceable batteries were drained and the waste electrolyte was mixed with water and sodium bicarbonate to neutralize it and then discharged to the sanitary sewer. Former practices also included washing the concrete floor and flushing it out onto the outdoor portion of the site. Batteries with small leaks on the gravel surface were observed at the last site investigation.

No further action is planned at this site.

STATUS

CONTAMINANTS:

Metals

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

RC

H. W. ACCUMULATION & USED OIL AGGREAGATION POINT - TN
SWMU #30A

SITE DESCRIPTION

This site is located at the Environmental Division's Accumulation Point at 3rd and Wickham Streets. It stores hazardous waste for less than 90 days and is the installation's used oil aggregation point. This site typically consists of waste collected from units on the installation, segregated, containerized and labeled for shipment. Before the waste reaches the 90 day time frame for accumulation, it is manifested and picked up by a contractor for transportation and disposal off post.

This site will be monitored by the Environmental Division to ensure compliance with RCRA requirements. Best management practices will be continued.

The site was listed as NFA in the 1990 HSWA permit.

STATUS

CONTAMINANTS:

Various

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC

BACH ACCUMULATION POINT - TN SWMU #30B

SITE DESCRIPTION

This site is located at the Blanchfield Army Community Hospital satellite accumulation point in building 650. It stores hazardous waste for less than 90 days. This site is solely used for storage of medical waste from Blanchfield Army Community Hospital. Before the waste reaches the 90 day time frame for storage, it is manifested and picked up by a contractor for transportation and disposal off post.

Responsibility for this project has been transferred to the Pollution Prevention Branch, Hazardous Waste Section. NFA is anticipated at this site.

STATUS

CONTAMINANTS:

Various (Medical Wastes)

MEDIA OF CONCERN:

Air

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC

DRMO ACCUMULATION POINT - TN SWMU #30C

SITE DESCRIPTION

This site is located at the Defense Reutilization and Marketing Office (DRMO) Satellite Accumulation Point at building 5211. It stores hazardous waste for less than 90 days. This site typically consists of waste collected from units on the installation, segregated, containerized and labeled for shipment. Before the waste reaches the 90 day time frame for storage, it is manifested and picked up by a contractor for transportation and disposal off post.

Responsibility for this project has been transferred to the Pollution Prevention Branch, Hazardous Waste Section. NFA is anticipated at this site.

STATUS

CONTAMINANTS:

Metals

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC

PROJECT 13-6-96X
WASTE OIL TANK AT BUILDING 3902 - KY
SWMU #36

SITE DESCRIPTION

This contaminated site is located at the Central Energy Facility on Indiana Ave. and 53rd Street and consists of two 5000 gallon aboveground waste oil tanks over bare soil. The piping system has leaked within a 2.5 foot high concrete berm. The unit is used to store waste oil from maintenance activities in the boiler plant. The waste oil is pumped via flexible and hard piping into the top of the tank. The used oils are periodically removed to other storage tanks at DRMO or off-site by an oil reclaimer contractor.

No further action was designated on August 18, 2000 in a letter from the Commonwealth of Kentucky.

STATUS

CONTAMINANTS:

TPH

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC

PROJECT 13-7-96X
SLUDGE DRYING BEDS - TN
SWMU #47

SITE DESCRIPTION

The Sludge Drying Beds, now abandoned, are located at the installation Waste Water Treatment Plant (WWTP) in Clarksville Base. There are 11 beds with dimensions of approximately 150 feet by 50 feet. Sludge from the WWTP digesters was pumped to the drying beds to dry. An RI/FS was completed in FY99. Results of this investigation indicated that the Sludge Drying Beds contain no contaminants of concern.

TN has concurred that no further action is required at this site in a letter dated March 5, 2002.

STATUS

CONTAMINANTS:

Metals (Cadmium)

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, RI/FS

CURRENT IRP PHASE:

RC

DRMO SCRAP & SALVAGE AREA - TN SWMU #49

SITE DESCRIPTION

This unit is a large asphalt paved area located at the Defense Reutilization Marketing Office's (DRMO) Scrap and Salvage Area. The DRMO is located in the south central portion of the cantonment area. This area is used for storage of scrap materials including metal, brass shell casings, automobiles, tarps, etc., for sale to reclaiming contractors or disposal off -site if needed. The area is surrounded by a fence and has approximate dimensions of 300 by 800 feet. The west end of the scrap yard contains the Interim Hazardous Waste Storage Area (SWMU 30).

No further action is planned at this site. The unit was listed as NFA in the 1990 HSWA permit.

STATUS

CONTAMINANTS:

Unknown

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC

PROJECT 13-10-96X REMOVE & INVESTIGATE H.W. OIL TANKS - TN SWMU #95 - 99

SITE DESCRIPTION

This unit involves five (5) separate locations containing abandoned underground waste oil tanks. The specific locations are building 7010S (SWMU 95); bldg. 7010N-#3 (SWMU 96); bldg. 7010N-#2 (SWMU 96); bldg. 5739N (SWMU 97); and bldg. 5739S (SWMU 98). The three tanks located at building 7010 are manifolded together as are the two tanks at building 5739. All tanks were abandoned sometime around 1990. Between the time of abandonment and attempted removal in 1992, unauthorized disposal of hazardous wastes were made in two of the tanks. Since that time, all five tanks have been removed, the area tested, and the site declared clean.

No further action is planned at this site. Tennessee granted NFA in a letter dated March 6, 1998.

STATUS

CONTAMINANTS:

Petroleum, Solvents

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC

PROJECT 5-13-91X
UNDERGROUND WASTE OIL TANKS - KY/TN
SWMU # SEE LIST BELOW

SITE DESCRIPTION

These Underground Waste Oil Tank sites have been identified as requiring a Confirmatory Sampling or Integrity Testing of the tank and piping system in order to meet the requirements outlined in the Corrective Action Permit. In 1991, the Restoration Division proposed a plan to Tennessee, Kentucky and the EPA. The plan called for the Underground Storage Tanks Division to investigate the tanks in question and initiate any corrective measures required. The plan was accepted. Since that time, all corrective measures pertaining to these sites (listed below) have been conducted by the Fort Campbell UST Division.

No further actions are planned at these sites (SWMU,Bldg -Tank): 100, 5670-1; 104, 6806-1; 105, 7014-1; 108, 5660; 109, 6823-1; 110, 6305-1; 111, No tank; 112, 7085-3; 113, 7085-2; 114, 7085-1; 115, 7057-1; 116, 7062-1; 117, 7062-2; 118, 7062-3; 119, 7062-4; 120, 7062-5; 121, 6874-2; 122, 6874-3; 123, 6874-4; 124, 6895-5; 127, 6636-3; 128, 6636-4; 129, 6533-1; 130, 7137-2; 131, 754; 132, 7820-2; 133, 7820-1.

STATUS

CONTAMINANTS:

Waste Oil, Fuel

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC

PROJECT 13-8-96X
SABRE DRUM STORAGE AREA - TN
SWMU #147

SITE DESCRIPTION

This abandoned site is located at the Sabre Army Heliport, adjacent to building 6636. During its operation from the late 1980s until July 1994, the area consisted of a sand pit about 10 feet by 10 feet bordered by wood railroad ties. Waste oil and waste fuel were stored in drums and tanks at this facility. Previous studies indicated no soil contamination occurred at this site, however, groundwater contamination from an un-determined source is present.

No further action was granted by Tennessee in a letter dated February 4, 2003.

STATUS

CONTAMINANTS:

VOCs, TPH

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

LTM (Under Project 13-37-99X)

FUTURE IRP PHASE:

LTM

PROJECT 6-24-95X
DPW POLE YARD - TN
SWMU #156

SITE DESCRIPTION

This site consists of a 221 by 377 feet fenced area with crushed stone surface. The area is located on the south side of 14th Street about midway between Bastogne Avenue (formerly Ohio Avenue) and Georgia Avenue and is used for electrical transformers and construction materials. Previous investigations indicate the presence of PCBs in the soil at levels as high as 50 mg/kg. An investigation completed in 1996 indicated no further investigation was required at this site.

No further action was granted by Tennessee in a letter dated March 12, 1998.

STATUS

CONTAMINANTS:

PCBs

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

RC

PROJECT 8-59-96X
COLLECTION VAULT SYSTEM - TN
SWMU #157

SITE DESCRIPTION

The collection vault system is part of the fueling system along the aircraft fueling line at Campbell Army Airfield (CAAF). The system has been in continuous operation since the 1940s. The aging piping has allowed contaminated ground water to infiltrate into the system necessitating bypass of the system into a nearby sinkhole during rainy periods. Repairs were made as necessary. Collection vault contents are now pumped through the JP-4 extraction system and then released to the sanitary sewer. See AOC G site description page for additional information.

No further action required.

STATUS

CONTAMINANTS:

Fuel (JP-4 & 8)

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, IRA

CURRENT IRP PHASE:

RC

PROJECT 13-11-96X
INVESTIGATE BUILDING 7160, CAAF - TN
SWMU #158

SITE DESCRIPTION

This area is located at Fire Station No. 3, building 7160 at Campbell Army Airfield. It involved an underground, leaky diesel fuel line that was suspected of releasing approximately 300 gallons of fuel over a two year period. This site is adjacent to other SWMUs at CAAF and may have affected those sites or vice versa. A completed RI indicates no contamination has migrated from this site, however EPA has requested further clarification of certain aspects of the report.

No further action was granted by the US EPA in a letter dated September 2, 1998.

STATUS

CONTAMINANTS:

BTEX

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI (Phase I)

CURRENT IRP PHASE:

RC

PROJECT 13-13-96X
CONTRACTOR'S SUPPORT AREA - TN
SWMU #159

SITE DESCRIPTION

This site is located along Third Street between Tennessee and Wickham Avenue. It was previously occupied by several construction contractors in trailers. A site visit indicated some environmental abuse of the area caused by occupants performing vehicle maintenance on the grounds and storage of electrical transformers and other hazardous waste in an unauthorized manner. During FY99, a Confirmatory Sampling (CS) was completed at the site. Based on the CS results, no significant contamination was detected.

No further action was granted by Tennessee in a letter dated April 13, 1999.

STATUS

CONTAMINANTS:

VOCs, SVOCs, TPH, PCBs, Pesticides, Metals

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC

PROJECT 13-19-97X
INVESTIGATE BATTERY SHOP - KY
SWMU #163

SITE DESCRIPTION

The battery shop is located in building 6844, a vehicle maintenance shop. The shop is used primarily for charging (activating) lead acid batteries. It appears that acid which runs into a floor sump may have escaped from the sump and impacted soil under the shop. Confirmatory Sampling (CS) was completed in FY99 using year-end FY98 funds. Results from the CS indicated no further action was required.

No further action was granted by the US EPA in a letter dated June 7, 1999 and by the Commonwealth of Kentucky in a letter dated June 18, 1999.

STATUS

CONTAMINANTS:

Sulphuric Acid, Metals, Anions

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

RC

PROJECT 13-20-97X
FUEL FILTER HOUSE - TN
SWMU #164

SITE DESCRIPTION

The Fuel Filter House is located at Sabre Heliport and is part of the Sabre fuel distribution system. Contamination was caused by a release of JP-8 fuel from a 1,000 gallon UST which overflowed. This tank is associated with the Fuel Filter House. In CY99, a second spill occurred in the fuel filter house. The contaminated surface soil was removed. In FY00, a confirmatory sampling (CS) to include three DPTs will be performed near the UST. An IRA will also be performed to remove 50 CY of contaminated soil.

No further action was granted by Tennessee in a letter dated December 10, 1999.

STATUS

CONTAMINANTS:

TPH

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, IRA

CURRENT IRP PHASE:

RC

PROJECT 13-29-98X
UST PIT 5628 - TN
SWMU #166

SITE DESCRIPTION

This is the site of a former vehicle (POV) maintenance and inspection rack located at the northwest corner of Tennessee Ave. and 18th Street. The rack (since removed) was of concrete construction from the WWII era but had been adapted for vehicle maintenance and inspections. The adapted underground trench and tank received used oil and other wastes (anti-freeze, acid, and solvents are suspected). The UST has been closed in accordance with TDUST. TPH contaminated soil remains at levels in excess of 8000 ppm.

A Phase one RFI was conducted in FY99, results indicated further investigation was required.

In FY00, a Phase two RFI was conducted including three additional soil borings. No additional soil contamination was found. The borings were converted to monitoring wells. Free product was detected in what was assumed to be the up-gradient well. Soil contamination remained at the site exceeding action levels.

STATUS

CONTAMINANTS:
TPH
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, RI (Phase I, II, III)
CURRENT IRP PHASE: Transfer to ER,A Program
FUTURE IRP PHASE:
See FCPB-64

In FY02, 3 additional wells were installed. Preliminary results indicated no exceedances of action levels in groundwater. However, free product is still present at the site (MW01). This site has been redesignated SWMU 170Z11 effective 1 Oct 2002, and will be addressed under the ER,A Program, FCPB-64.

PROJECT 13-35-98X
WASTE OIL PIT AT DRMO - TN
SWMU #167

SITE DESCRIPTION

This site is located near the front of building #5212 in the DRMO operating area on Oregon Avenue at 3rd Street. The site was discovered during excavation for a new sanitary sewer line installation. A 10,000 gallon UST was subsequently removed. The tank contents were contaminated with TCE and were disposed. The excavation was backfilled with clean material and repaved. In FY99, a Final Remedial Action report was submitted to TN recommending no further action. This recommendation was accepted by EPA and TN.

No further action was granted by Tennessee in a letter dated August 20, 1999.

STATUS

CONTAMINANTS:
VOCs, Lead, TPH
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, IRA
CURRENT IRP PHASE:
RC

FORMER VEHICLE MAINTENANCE FACILITY - TN SWMU #168

SITE DESCRIPTION

This site is a former vehicle maintenance facility located just inside and north of Gate Two. The facility was of World War II construction and according to historical maps included a vehicle maintenance shop, POL (petroleum, oil, lubricants) storage buildings, oil pits, and lubrication racks. It was discovered during the demolition of tennis courts.

This site will be investigated under project number 5-13-91X, SWMU Investigations. In the investigative report dated August, 2001, *SWMU and AOC Investigation at Multiple Sites*, no further action was recommended for this site.

STATUS

CONTAMINANTS:

POL

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA

CURRENT IRP PHASE:

RC

PROJECT 13-27-98X A/C FUEL PUMPING STATIONS - KY AOC A

SITE DESCRIPTION

This site consists of two aircraft (A/C) fuel pumping stations each having six 50,000 gallon underground fuel storage tanks serving six fueling pits. Included in this site are the underground drainage system, fuel meter pits, and fueling/refueling/defueling lines. This is where the CAAF fuel contamination investigations began in October 1985. Previous leaks and spills have occurred leading to soil and groundwater contamination. The fueling line from the ASTs to Pumphouse two was replaced in the fall of 1996. Other repairs and maintenance activities have been performed over the years in an attempt to maintain system integrity. A RI/FS was completed in FY99 along with Tracer testing of the fuel system, fingerprinting of all CAAF wells for JP-8, and removal of 400 feet of abandoned fuel supply line near AOC D and Hangar 4. The underground drainage system was replaced and the fuel hydrant sytem was tested for integrity. The integrity of the system was certified with the exception of pumphouse one where a fuel leak in the fuel delivery line was identified and repaired. In FY01, two additional monitoring wells were installed, one at each pumphouse.

STATUS

CONTAMINANTS:

VOCs, SVOCs, RCRA8

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS (Phase I)

CURRENT IRP PHASE:

RI (Phase II)

FUTURE IRP PHASE:

Continued Compliance

Recertification of the entire fuel hydrant system will be conducted. DESC funding for the recertification of the hydrant fuel system and for removal of the dresser couplings at pumphouse two and any associated contamination will be pursued.

PROJECT 13-21-98X
RADIATION SURVEY - TN
AOC E

SITE DESCRIPTION

This project provides for a general radiation survey of certain facilities located within Clarksville Base, an abandoned cold war era munitions storage facility. Clarksville Base was operated by the Atomic Energy Commission between 1948 and 1966. Specific sites of concern are UST at bldg. 7740, 7811, 7825, 7875, and randomly selected bunkers.

No further action was granted by the US EPA in a letter dated January 10, 2000 and by Tennessee in a letter dated August 20, 1999.

STATUS

CONTAMINANTS:

Radiation

MEDIA OF CONCERN:

Buildings, Structures

COMPLETED IRP PHASE:

PA/SI, RI/FS

CURRENT IRP PHASE:

RC

PROJECT 13-22-98X
OASIS TANK (HOT REFUELING) - KY
AOC F

SITE DESCRIPTION

The 160,000 gallon above ground storage tank sits in a bermed area near Hangar 5 at Campbell Army Airfield (CAAF). Tank bottom water has been drained directly to the bermed area as required. Tank bottom water samples collected on September 19, 1994 indicated elevated levels of TPH, Benzene, and Toluene. A RI was completed in FY99 in which three Geoprobe locations within the bermed area were sampled and tested. Results indicated no significant contamination within the bermed area.

No further action was granted by the Commonwealth of Kentucky in a letter dated December 17, 2003.

STATUS

CONTAMINANTS:

Petroleum Related Compounds

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

RC

PROJECT 13-4-96X
EVALUATE SITE NO. 6078 (FORMERLY #6092) - TN AOC I

SITE DESCRIPTION

This site is located off Screaming Eagle Blvd. (formerly 25th Street) opposite the Range Control Center and between SWMUs 1 and 3. The area was previously used for several years by refuse removal contractors. A site assessment indicated soil contamination from past activities.

In 2000, a RA was conducted removing approximately 160 CY of contaminated soil. Debris was encountered during the RA. Confirmatory sampling showed TPH contamination remains at the southern end of the site above action levels.

In FY02, additional soil removal was conducted with confirmatory sampling. The sampling indicated additional soil removal was necessary. A trench was excavated in the southern border to verify that the debris was not part of the Landfill.

In the summer of FY04, removal of the utility pole and underground utilities, excavation of contaminated soil, replacement of utilities and plugging and abandonment of two monitoring wells will be completed using FY04 funds.

No further action is anticipated.

STATUS

CONTAMINANTS:
VOCs, SVOCs, Metals
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, RI (Phase I, II), RA
CURRENT IRP PHASE:
RC - 2004

PROJECT 13-16-97X
WASTE BURIAL AREA - KY AOC J

SITE DESCRIPTION

This site is located at Campbell Army Airfield near an abandoned fire training area (SWMU 12/15). It consists of partially exposed vehicle carcasses. The carcasses do not apprear to be associated with the burn site because no burn marks are present on the exposed parts. Using underground radar survey results three excavations were made during the IRA. The following objects were unearthed: two fuel oil tankers, a helicopter fuselage, and scrap metal and debris. Analytical results indicated lead exceedances at the site. The lead exceedances will be addressed through risk management as part of SWMU's 12/15.

No further action is anticipated at this site.

STATUS

CONTAMINANTS:
Unknown
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, IRA
CURRENT IRP PHASE:
RC

PROJECT 13-23-98X
SINK HOLE AT 30TH & A SHAU VALLEY - TN
AOC K

SITE DESCRIPTION

This sinkhole receives runoff from a number of sources to include a seven acre paved vehicle parking area. The vehicle parking area supports the maintenance shops. Several spills have occurred upgradient from the sinkhole in the past. In recent years, small leaks from numerous vehicles were flushed to the down gradient sink hole from the parking area. A confirmatory sampling (CS) was performed in FY99 indicating TPH contamination within drainage swales. In FY00, an IRA was performed to remove the contaminated soil. An additional area of contamination was identified in the eastern swale during the IRA. During FY01, an RI and IRA will be executed with FY01 funds.

No further remedial action is anticipated. The asphalt covered area of this site is a potential candidate for a LUCIP.

STATUS

CONTAMINANTS:

VOCs, SVOCs, Metals

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RC

PROJECT 13-30-98X
ACID PITS - TN
AOC M

SITE DESCRIPTION

There are four acid pits and four oil/grease interceptors, two of each type, at each vehicle maintenance shop in the 1st and 2nd Brigade shop areas. The shops are located on Tennessee Ave. between 47th and 52nd Street. The pits/interceptors were installed at the time the shops were constructed in CY75. The acid pits were designed to receive battery shop runoff. The oil/grease interceptors were designed to receive runoff from floor drains in the maintenance shops. Each pit is approximately 3 feet by 4 feet with concrete covers which protrude slightly above ground level. Confirmatory sampling was performed in FY00 at each structure. Results indicate evidence of a possible release at one of the sites. The interceptors have been removed and CS completed.

No further action was granted by the Commonwealth of Kentucky in a letter dated May 10, 2002.

STATUS

CONTAMINANTS:

VOCs, SVOCs, Metals

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, RA

CURRENT IRP PHASE:

RC

PROJECT 13-38-99X
CORRECTIVE ACTIONS PROGRAM - KY/TN
SWMU STATUS REPORT

SITE DESCRIPTION

This project is required as a result of the termination of the installation's Hazardous Waste Container Storage portion of Permit EPA ID No: TN5 21 002 0140, as requested by Fort Campbell. This action did not include the termination of the Corrective Actions (CA) portion of the permit. This portion of the permit requires SWMU reporting and cleanup where required. An Appendix A has been prepared and submitted to EPA, Kentucky and Tennessee to determine what actions will be required to successfully finalize all remediations under the current installation's Corrective Actions Program (1990-2000). With this data, EPA and the States can prescribe future required actions beyond the November 1, 2000 expiration date of the current Corrective Action portion of the permit.

Further modifications will be made as necessary.

STATUS

CONTAMINANTS:

All

MEDIA OF CONCERN:

None

COMPLETED IRP PHASE:

Permit Renewal

CURRENT IRP PHASE:

RC

FUTURE IRP PHASE:

As Required

Schedule

PAST MILESTONES

The Installation Restoration Program at Fort Campbell formally began with the RCRA Facility Investigation of Campbell Army Airfield in 1988. To date, major milestones include: the completion of the Campbell Army Airfield RCRA Facility Investigation Report in April 1991; the completion of the Draft Final Campbell Army Airfield Feasibility Study Report in January 1992; the completion of the Confirmatory Sampling and RCRA Facility Investigation Reports in July 1995; and the completion of the RCRA Facility Investigation (23 sites) Report in Jan 2002.

In May 2000, the soil vapor extraction pilot test at CAAF was completed. Results indicated that the system was an effective means of extracting fuel vapors and product trapped in the subsurface. SVE continues at the airfield. To date the system has removed approximately 50,000 equivalent gallons of fuel from the subsurface.

Jan 1982	PA/SI - Installation
Aug 1990	RFA - Installation
July 1991	RI - Campbell Army Airfield (FCPB 38)
Jan 1992	FS Report (Draft Final) - Campbell Army Airfield (FCPB 38)
Dec 1992	IRA - Campbell Army Airfield (FCPB 38)
Aug 1993	SWMU Confirmatory Sampling Field Work at FCPB Numbers: 1-8, 16-19, 21-24, 26-34, 37, 39
Aug 1993	SWMU RCRA Facility Investigation Field Work at FCPB Numbers: 9, 10, 14, 15, 20, 25, 35, 36, 38, 40
Nov 1993	SWMU Confirmatory Sampling Report (Draft) on FCPB Numbers: 1-8, 16-19, 21-24, 26-34, 37, 39
Nov 1993	SWMU RCRA Facility Investigation Report - Phase 1 (Draft) on FCPB Numbers: 9, 10, 14, 15, 20, 25, 35, 36, 38, 40
Jul 1995	FS Report (Final) - Campbell Army Airfield (FCPB 38)
Mar 1996	PA/SI Report (Final) on FCPB Numbers: 41 - 52
Jan 1997	RI/FS Phase I - FCPB-43
Apr 1997	RI/FS Phase I - FCPB-47
Apr 1997	Historical Photos Analysis of Cantonment Area (FCPB-52)
Apr 1997	RI/FS - Risk Assessment - FCPB-48
Apr 1997	IRA - FCPB-48
Jun 1997	PA/SI Report (Final) on FCPB Numbers: 42 - 54
Jul 1997	RI/FS Report (Draft) on FCPB Numbers: 5, 7, 10, 18 - 24, 26 - 36
Dec 1997	RI/FS Phase I (Draft) - FCPB-52
Mar 1998	Historical Photo Analysis of Old Clarksville Base - FCPB-49
May 1998	Installation Risk Assessment Strategy Document (Draft)
Jan 1999	Phase I Ground Truthing Report - FCPB-38
Jun 1999	RI/FS Phase II - FCPB-52
Aug 1999	Installation Risk Assessment Strategy Document (Final)
Aug 1999	Master RFI (Draft) - FCPB-38
Sep 1999	RI/FS Phase I (Draft) - FCPB-49

Schedule

PAST MILESTONES

Mar 2000	Removal/Subsurface Investigation of Inactive Fuel Lines - FCPB-38
Mar 2000	RI/FS - FCPB-63
May 2000	SVE Pilot Test - FCPB-38
Aug 2000	RI/FS Phase II - FCPB-40
Jan 2001	Phase III RCRA Confirmatory Sampling at 17 Oil Pits, SWMU 149
Jul 2001	RCRA Confirmatory Sampling at Area of Concern L, Lubrication Racks
Jul 2001	Phase III RCRA Facility Investigation/Confirmatory Sampling at Campbell Army Airfield for AOC A (Engine Test Facility) and AOC D (Bulk Fuel Farm)
Sept 2001	Interim Remedial Actions at AOC B, AOC G and AOC H
Oct 2001	Phase III RCRA Facility Investigation at Solid Waste Management Units 149A and 149F, Oil Pits
Oct 2001	Phase I RCRA Facility Investigation, Underground Storage Tank Soil Cleanup at Solid Waste Management Unit 150
Dec 2001	RCRA Facility Investigations at Solid Waste Management Unit 146 (Blivet Repair Facility)
Jan 2002	RCRA Interim Removal Action for Six Oil Pits, Fiscal Year (FY) 2001, SWMU 149 Oil Pits
Jan 2002	RCRA Facility Investigation at 23 sites (Final Report)
Feb 2002	Interim Remedial Actions at SWMU 33 (Pesticide Mixing Area)
Feb 2002	RCRA Corrective Action for SWMU 145, Old Skeet Range
Feb 2002	Phase II Campbell Army Airfield Master RCRA Facility Investigation at Building 7154 (Hangar 3), Paint Spray Booth (at Building 7156), and Monitoring well CAAF-11

FORT CAMPBELL IAP SCHEDULE

(Based on current funding)

		FY05	FY06	FY07	FY08	FY09	FY10+
FCPB-07, SWMU 33	LTM						
FCPB-09, SWMU 21	FRA						
	LTM						
FCPB-10, SWMU 28	RA						
	LTM						
FCPB-24, SWMU 48	RI/FS						
FCPB-26	LTM						
FCPB-38	RI/FS						
	IRA						
	RA						
	RA(O)						
FCPB-43, SWMU 140	LTM						
FCPB-49, SWMU 146	FRA						
	IRA						
	LTM						
FCPB-52, SWMU 149	IRA						
	FRA						
	RA(O)						
	LTM						
FCPB-58, SWMU 153	RA						
	LTM						
FCPB-64, SWMU 170	RI/FS						
	IRA						
	FRA						
	LTM						
FCPB-65, SWMU 171	RI/FS						

Remediation Activities

COMPLETED REM/IRA/RA:

- FCPB-07, Pesticide Mixing and Storage Facility - IRA (soil removal)
- FCPB-10, Old Open Burn/Open Detonation Area (SWMU #28) - IRA (fencing)
- FCPB-16, PCB Storage Area - IRA
- FCPB-26 thru 32 & 34, Sanitary/Construction Debris Landfills (SWMU #s 1-7 & 9) -maintenance cover: OMA Funds; Groundwater treatment (SWMU 2) IRA.
- FCPB-30, Sanitary Landfill (SWMU #5) - cover
- FCPB-35 & 36, Abandoned Fire Training Areas (SWMUs # 12 & 15) - IRA (soil treatment): *IRA (Soil removal - lead contamination); *IRA (Groundwater treatment): *=funded under FCPB-38
- FCPB-38, CAAF - Immobilizing of sediment of AOC H (FCPB-60); Removal of pesticide contaminated soil at AOC D.
- FCPB-47, Post Laundry (Bldg 860) - IRA
- FCPB-48, Old Skeet Range (SWMU # 145) - IRA (installation of a 6 foot chain-link fence)
- FCPB-48, Old Skeet Range - RA (Soil removal and backfill)
- FCPB-49, Blivet Repair Area - IRA (Soil removal)
- FCPB-52, Oil Pits - IRA (Pit removal)
- FCPB-53, UST Soil Clean Up (SWMU #150) - IRA (tank removal & soil treatment)
- FCPB-64 Lube Racks - IRA (Soil removal)
- FCPB-38, CAAF - Soil removal - IRA (AOC B)

CURRENT REM/IRA/RA:

- FCPB-38, CAAF - An interim remedial action has been in operation since December 1992. The system is designed to address the groundwater contamination at Campbell Army Airfield (CAAF) by removing free product, JP-4, from two wells.
- FCPB-38, CAAF - Multi-Phase Extraction - IRA
- FCPB-38, CAAF - Groundwater treatment at Hanger 2 - IRA
- FCPB-43, Groundwater treatment - IRA
- FCPB-49, Groundwater treatment - IRA

FUTURE REM/IRA/RA:

IRA at FCPB-38, 52, 64

RA at FCPB-09, 10, 24, 38, 49, 52, 58, 64

Remediation Activities

COMPLETED REM/IRA/RA:

- FCPB-07, Pesticide Mixing and Storage Facility - IRA (soil removal)
- FCPB-10, Old Open Burn/Open Detonation Area (SWMU #28) - IRA (fencing)
- FCPB-16, PCB Storage Area - IRA
- FCPB-26 thru 32 & 34, Sanitary/Construction Debris Landfills (SWMU #s 1-7 & 9) -maintenance cover: OMA Funds; Groundwater treatment (SWMU 2) IRA.
- FCPB-30, Sanitary Landfill (SWMU #5) - cover
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- FCPB-49, Groundwater treatment - IRA

FUTURE REM/IRA/RA:

IRA at FCPB-38, 52, 64

RA at FCPB-09, 10, 24, 38, 49, 52, 58, 64

FORT CAMPBELL IAP SCHEDULE (OM,A)

(Based on current funding)

		FY05	FY06	FY07	FY08	FY09	FY10	FY11+
LANDFILLS	COMP							
SITE 27	**LTM**							
SITE 32	**LTM**							
SITE 138	**RI/FS**							
	IRA							
	LTM							
SITE 170	**RI/FS**							
	IRA							
	RA							
	LTM							
AOC D	**COMP**							
AOC N	**IRA**							
AOC O	**IRA**							
	LTM							
AOC Q	**IRA**							
AOC R	**RI/FS**							
	LTM							
SWMU INVEST	**RI/FS**							
OWS	**IRA**							
WELL SAMPLING	**LTM**							

Remediation Activities

COMPLETED REM/IRA/RA:

- SWMUs # 1-6, 7, 8, 9, 11, 14, 15, 16, 17, 141, 152, 161, 162, and AOC P - Landfill Closure and Compliance - Cap/Maintenance cover installed/repaired
- SWMU 27, OB/OD- RA - UXO removal, site closure (FY03)
- SWMU 32, Golf Course Pesticide Mixing Area - Removal of contaminated soil
- SWMU 95-99, Hazardous Waste Oil Tanks - RA, Removal & closure
- SWMU 138, PX Service Station - RA, In-situ soil treatment
- SWMU 157, Collection Vault System - IRA, Sealing, instrument installation, connection to pump & treat
- SWMU 167, Waste Oil Pit @ DRMO - RA, Removal of contaminated soil and undocumented tank
- SWMU 164, Fuel Filter House (13-20-97X) IRA - Removal of contaminated soil
- AOC A, Fuel Pumping Stations (13-27-98X), RA - DPTs & lithology boring @ pumphouse 1 & 2
- AOC I, Evaluate Site No. 6078 - IRA - Removal of contaminated soil
- AOC K, Sinkhole @ 30th & Colorado (13-23-98X), IRA - Removal of contaminated soil
- AOC O, Fuel Oil Release - RA - Removal of contaminated soil
- Project 13-15-98X, Oil Water Separators - IRA/RA, Remove/close OWS

CURRENT REM/IRA/RA:

- Project 13-15-98X, Oil Water Separators - IRA at three sites
- AOC I, Evaluate Site No. 6078 (IDW Yard) - RA - Soil removal (FY04 funding)

FUTURE REM/IRA/RA:

- SWMU 138, PX Service Station - IRA, Soil removal
- AOC L, Vehicle Service Racks - IRA at twenty-three sites, RA at six sites
- AOC O, Central Energy Facility - IRA, Tank and soil removal
- AOC Q, Old Hospital Site - IRA, Soil removal

Community Involvement

RESTORATION ADVISORY BOARD (RAB) STATUS

FORMATION OF THE RAB: In November 1995, Fort Campbell solicited for members of the surrounding community who may be interested in participating on a Restoration Advisory Board (RAB). Tennessee and Kentucky residents were encouraged to attend a RAB orientation meeting held in February 1996 in Clarksville, TN. Adjacent landowners, local environmental groups, local college professors, mayors and other officials, members of the local Chambers of Commerce, and select individuals recommended to the Environmental Division were invited to the orientation meeting by direct mail. Newspaper advertisements, television announcements and flyers in community libraries were additional methods used to announce the formation of Fort Campbell's RAB.

After the orientation meeting was held, interested community members were asked to complete an application, a biographic information form and a demographic information form. These forms were reviewed and the Environmental Division made a decision to seek more members of the community to diversify the group of applicants. Solicitation efforts were made through the Equal Employment Opportunity Office on Fort Campbell, an Earth Day program in Clarksville, school principals in the four counties of Fort Campbell, and through town officials from areas where no representation existed in the current group of RAB applications. A second orientation meeting was held in Hopkinsville, KY in May 1996.

RAB MEMBERSHIP: The RAB was officially formed on June 11, 1996 and included five members from Fort Campbell, two Kentucky state representatives, two Tennessee state representatives, one EPA representative and fifteen members of the surrounding communities. Although a few community members of the RAB have resigned due to other commitments, the strength of the membership has been maintained. RAB Training from June 1996 to 2003, the RAB has held monthly meeting of approximately two hours in length. In 2003, the RAB voted to begin meeting quarterly. Annually, RAB members receive an updated handbook which includes general RAB membership information, as well as a description of all the restoration sites. Descriptions of the sites include pictures and maps, funding information and proposed investigations/remedial actions. The RAB has received training through presentations on risk assessment, karst geology, groundwater hydrology and contaminant fate and transport. A general overview of the Army Environmental Restoration Program and regulatory agencies, Forces Command (FORSCOM) funding information and RCRA and CERCLA terminology have also been presented to the RAB. The RAB is regularly briefed on the status of Fort Campbell's high priority sites.

RAB TRAINING: All RAB members receive an updated handbook annually, which includes general RAB and membership information, as well as, a description of all the restoration sites including pictures and maps. They received training through presentations on risk assessment, karst geology, a general overview of the Army Environmental Restoration Program and regulatory agencies, Forces Command (FORSCOM) funding information, RCRA & CERCLA terminology, Fort Campbell budget information for fiscal years 1996 and 1997, an Installation Action Plan overview, and groundwater characterization. They have also been briefed on Fort Campbell's high priority sites, the 23 sites listed in the RCRA Facility Investigation and 12 sites listed in the 1996 RCRA Facility Assessment.

RAB ACTIVITIES: The RAB continues to review and provide questions and comments on the continued investigation and remediation phases of IRP sites. Representatives of the RAB are invited to participate in the annual Installation Action Plan meeting. Several times during the year, the RAB visits those installation Solid Waste Manangement Units under investigation/remediation.

PROJECTIONS FOR THE RAB: Over the next year, the members will continue to develop a better understanding of the challenges faced by the Fort Campbell Restoration Program. They will also begin to weigh risk factors of groundwater contamination against cost benefits of site restoration and remediation.

Acronyms & Abbreviations

AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
AST	Aboveground Storage Tank
BRAC	Base Realignment and Closure
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
CAAF	Campbell Army Airfield
CAMU	Corrective Action Management Unit
CELRN	Corps of Engineers, Nashville District
CELRL	Corps of Engineers, Louisville District
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CDM	Camp Dresser & McKee
CMI	Corrective Measure Investigation
CMS	Corrective Measure Study
Cr	Chromium
CS	Confirmatory Sampling
CY	cubic yards
DA	Department of the Army
DD	Decision Document
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
DPT	Direct Push Technology
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Office
DRO	Diesel Range Organics
DS2	decontamination agent
DSERTS	Defense Site Environmental Restoration Tracking System (now AEDB-R)
EM	Electromagnetic
EPA	United States Environmental Protection Agency
EPPC	Environmental and Public Protection Cabinet
ER,A	Environmental Restoration, Army
FCPB	AEDB-R Code for Fort Campbell
FORSCOM	United States Army Forces Command
FS	Feasibility Study
FTC	Fort Campbell
FY	Fiscal Year
GW	groundwater
GWM	groundwater monitoring
HMX	kind of explosive
HRC	Hydrogen Releasing Compound
HW	Hazardous Waste
IAG	Interagency Agreement
IAP	Installation Action Plan
IR	Information Repositories
IRA	Interim Remedial Action
IRP	Installation Restoration Program
JP-4	Jet Propellant Number Four
JP-8	Jet Propellant Number Eight
KNREPC	Kentucky Natural Resources and Environmental Protection Cabinet
KYDEP	Kentucky Department of Environmental Protection

Acronyms & Abbreviations

KY	Kentucky
LTM	Long-Term-Monitoring
LTO	Long-Term-Operation
MACOM	Major Command
MCA	Military Construction, Army
MCL	Maximum Contaminant Level
MOUT	Military Operations in Urban Terrain
msl	mean sea level
MWR	Morale, Welfare and Recreation
NBC	Nuclear, Biological and Chemical
NE	Not Evaluated
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NOV	Notice of Violation
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
OB/OD	Open Burning/Open Detonation
OMA	Operations and Maintenance - Army
OMAR	Operations and Maintenance - Army Reserve
ORC	Oxygen Releasing Compound
OWS	Oil and Water Separator
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PCE	Perchloroethylene
PMC	Profession Management Corp. Inc.
PNNL	Pacific Northwest National Laboratory
POL	Petroleum, Oil and Lubricants
PPB	Parts Per Billion
PPM	Parts Per Million
PRG	Preliminary Remediation Goal
PWBC	Public Works Business Center
PY	Prior Year
PX	Public Exchange
RA	Remedial Action
RAB	Restoration Advisory Board
RAO	Remedial Action - Operation
RAS	Risk Assessment Strategy Document
RBSL	Risk-Based Screening Level
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RDX	kind of explosive
REM	Removal
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy in Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation

Acronyms & Abbreviations

RSC	Regional Support Command
S/A	Supervision and Administration
S/R	Supervision and Remediation
SI	Site Inspection
STEP	Solutions to Environmental Problems, Inc.
STP	Sewage Treatment Plant
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compounds
SWMU	Solid Waste Management Unit
SWMUG	Solid Waste Management Unit Group
TCE	Trichloroethylene
TCLP	Toxicity Characteristic Leachate Procedure
TDEC	Tennessee Department of Environment and Conservation
TEC	Topographic Engineering Center
TERC	Total Environmental Restoration Contract
TN	Tennessee
TPH	Total Petroleum Hydrocarbons
TRC	Technical Review Committee
UFSS	Underground Fuel Storage System
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Center
USAEHA	United States Army Environmental Hygiene Agency
USAR	United States Army Reserve
USARC	United States Army Reserve Command
USATHMA	United States Army Toxic and Hazardous Material Agency (replaced by AEC)
USGS	United States Geological Society
UST	Underground Storage Tank
UTM	Underground Tank Monitoring
UXO	Unexploded Ordnance
VOC	Volatile Organic Compounds
WES	Waterways Experiment Station
WWTP	Waste Water Treatment Plant